

**BOARD OF SUPERVISORS  
ACTION ITEM**

**#12**

**SUBJECT: CPAM 2006-0002, Crosstrail**

**ELECTION DISTRICT: Countywide**

**CRITICAL ACTION DATE: December 5, 2006**

**RECOMMENDATIONS:**

**Board of Supervisors – Committee of the Whole:** On November 27, 2006, the Board of Supervisors Committee of the Whole voted (7-1-1; York opposed, Tulloch absent) to forward CPAM 2006-0002, Crosstrail to the December 5, 2006, Board Business meeting with no recommendation. The motion included housing policies as distributed by Supervisor Kurtz.

**Planning Commission:** On September 11, 2006, the Planning Commission voted (5-2-1-1; Doane and Ruedisueli, opposed, Hsu absent, Munsey abstained) to recommend approval of the applicant's proposed changes to the Comprehensive Plan. The Planning Commission also recommended that Comprehensive Plan policy be changed to designate the Loudoun County Sanitation Authority (LCSA) as the provider of utilities for the Leesburg Joint Land Management Area (JLMA).

**Staff:** Staff recommends retention of the existing land use designation for the Crosstrail property and retention of existing land use, utility, and transportation policy in the Comprehensive Plan.

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**BACKGROUND:** The Crosstrail property is located south of the Town of Leesburg corporate limits and within the Leesburg Joint Land Management Area (JLMA). It is between the Greenway and the Leesburg Airport south of Tolbert Lane. The property is approximately 491 acres and is currently zoned JLMA-20 and the entire property is located within the AI (Airport Impact) Overlay District. On May 16, 2006, the Board of Supervisors initiated consideration of amendments to the Revised General Plan (RGP), the Toll Road Plan (TRP), and the Revised Countywide Transportation Plan (CTP) proposed by the applicant for the Crosstrail rezoning proposal. These proposed policy and map changes were initially proposed by the applicant in September, 2004. The Board further directed that the CPAM track concurrent with the rezoning application through the County's review process.

The Planning Commission held a public hearing on the CPAM on June 19, 2006 and three subsequent worksessions on July 6, July 17, and September 11, 2006. The Planning Commission voted to recommend approval of the proposed language on September 11, 2006. Given State Code requirements, the Board has 90 days to review the CPAM and act on the Planning Commission's recommendation (December 11, 2006).

The Board of Supervisors conducted a public hearing on the CPAM (and rezoning) on November 14, 2006 and two subsequent Committee of the Whole worksessions on November 20 and 27, 2006. After discussion of the policy issues of the CPAM related to utility provision, airport compatibility and land use mix, the Board forwarded the CPAM to the December 5, 2006 meeting with no recommendation.

The CPAM proposal suggests the following changes:

- Land Use Map – Revise the RGP and TRP planned land use maps to re-designate the subject property from Business Employment/Keynote to Business Community.
- Land Use Mix Policy – Add a specific land use mix in the RGP policies for the subject property. The mix includes residential uses; adult/retirement housing; office/retail and service; light industrial; neighborhood retail

and services; public parks, open and civic space. A range of percentage of the total land area for each component is specified in the mix.

- Utility Policy - Amend policy in the RGP and the TRP to allow either the LCSA or the Town to provide utilities in the Leesburg Joint Land Management Area (JLMA). (Current policy states that the Town will provide utilities in the JLMA unless another provider is agreed upon by the Town and the County.)
- Transportation Policy – Amend the CTP to include an off-ramp from the Dulles Greenway to the Crosstrail site between Battlefield Parkway and Crosstrail Boulevard.

**ISSUES:** There are two primary issues related to the CPAM: 1) A change in land use designation to include a residential component and a unique land use mix for the Crosstrail property and; 2) the proposed policy change to permit either the Town or the LCSA to provide utility service to the Leesburg JLMA. Regarding the former, discussion has focused on the impacts of locating residential use adjacent to the Leesburg Executive airport and whether a unique land use mix, with up to 50% residential, is justified for the Crosstrail property only.

Regarding the utility issue, the Town and the LCSA provided information on technical considerations for utility conveyance, and fiscal implications for service provision. The LCSA and Town agree that one system, as opposed to two separate utility systems in the Lower Sycolin watershed, would make sense. The Town has been planning to provide service to the JLMA since the early 1990's. The Planning Commission, however, supported the applicant's proposed changes and in addition, supported a policy to designate the LCSA as the provider of utility service in the JLMA. The existing policy allows for another provider (other than the Town) to serve the JLMA if mutually agreed upon by the Town and the County. At the worksession on November 27, the Board discussed whether an agreement could be drafted between the Town and the LCSA that would permit both entities to develop a service plan for the JLMA that would define construction, service, and maintenance responsibilities for utilities.

At the November 27 worksession, Supervisor Kurtz distributed housing policies that she is recommending be included in the Crosstrail CPAM (Attachment 3). The Board included these housing policies as part of the motion referring CPAM 2006-0002 to this business meeting.

**ALTERNATIVES:** Staff has provided a number of draft motions below for the Board to consider. The options are provided in each of the four policy areas which are the subject of this CPAM. To accept all of the proposed policy changes, see motions 1, 4, 6 and 8 below. To reject all of the proposed changes see motions 2, 5, 7, and 9 below. Options from each of the four groups may be selected to create a different alternative.

#### **DRAFT MOTION(S):**

I move that the Board of Supervisors adopt the following policy options regarding CPAM 2006-0002, Crosstrail:\_\_\_\_\_

#### **Policy Options – Utilities**

1. Accept the utility language as proposed in CPAM 2006-0002, (changes to RGP and TRP as specified in Attachment 1, pages A-1 and A-3) to allow either the Town or the LCSA to serve the Leesburg JLMA with utilities.
2. Retain the existing policy language in the Revised General Plan and the Toll Road Plan to allow the Town to serve the JLMA unless a different provider is agreed upon by the Town and the County. Further, I move that the Board request that the Town and the LCSA work on a draft utility agreement for service to the Leesburg JLMA and that the Town and LCSA report back to the Transportation/Land Use Committee on such draft at an acceptable date to be determined between the Chairman of the Committee, the LCSA and the Town.

3. Change the policy language in the Revised General Plan and the Toll Road Plan to allow the LCSA to be the provider of utilities in the Leesburg JLMA (Consultation with the County Attorney may be necessary regarding advertisement of this option).

#### **Land Use Designation**

4. Accept the Planned Land Use map change as proposed in CPAM 2006-0002, from Business Employment (Toll Road Plan) and Keynote (Revised General Plan) to Business Community for the Crosstrail property.
5. Retain the existing Planned Land Use map designations of Business Employment and Keynote for the Crosstrail property.

#### **Land Use Mix**

6. Accept the land use mix policy changes as proposed in CPAM 2006-0002 for Chapter 9, policy 8 of the Revised General Plan (see Attachment 1).
7. Retain the existing land use mix policy for Business Community in the Comprehensive Plan. A unique land use mix policy would not be ascribed to the Crosstrail property.

#### **Transportation**

8. Accept the proposed changes to the Countywide Transportation Plan (CTP).
9. Retain the existing language in the Countywide Transportation Plan (CTP).

#### **ATTACHMENTS:**

1. Applicant's proposed Comprehensive Plan changes as submitted and advertised in May, 2006.
2. Applicant's letter dated November 21, 2006
3. Housing policies distributed by Supervisor Kurtz at the November 27, 2006 Committee of the Whole meeting
4. Information prepared for November 20 and 27 Board worksessions
  - a. Comparison of other airports in region and land use patterns around them
  - b. Staff memo and information on Land Uses Adjacent to Airports
  - c. Information on Leesburg Airport Flight Patterns and map
  - d. Comparison of other town center projects

**STAFF CONTACT:** Susan Berry Hill, Department of Planning

# EXHIBIT 1

## PROPOSED COMPREHENSIVE PLAN AMENDMENTS

### I. REVISED GENERAL PLAN AMENDMENTS

#### PLANNED LAND USE MAP AMENDMENT

**Change Property Designation from Keynote to Business**  
**(Reference Exhibits 2 and 3)**

*Reason for Change Proposed: The Business designation promotes mixed use. The Keynote designation is a single use district limited to large scale office development with ancillary uses. The Business designation addresses the location of large scale office and promotes a mix of uses including housing, commercial/retail, light industrial and public/civic uses.*

#### TEXT AMENDMENTS 1

#### CHAPTER 9: THE TOWNS, PUBLIC UTILITIES POLICIES

1. *The Towns will be the providers of public sewer and water in their town JLMAs unless a different provider is agreed upon by the county and the town. Properties within the Leesburg JLMA may be served by either the Town or the Loudoun County Sanitation Authority.*

*Reason for Change Proposed: In April of 2004, the County amended the Plan to provide public sewer and water extensions into the Transition Area of the County. This property is immediately adjacent to Transition Areas and the availability of public utilities.*

#### CHAPTER 9: THE TOWNS, LEESBURG JOINT LAND MANAGEMENT AREA POLICIES

8. *The southeastern portion of the JLMA will be remapped to zoning classifications that are compatible with the Land Use Map and that are compatible with the Leesburg Executive Airport. Development to the west of the Airport, east of the Dulles Greenway, between the Battlefield Parkway and Crosstrail Boulevard interchanges, will be developed for mixed use including employment, housing (high density and suburban residential densities, plus adult/retirement component), retail, and public/civic uses. The land use mix (measured as a percentage of the gross land area) will generally comply with the following ratios:*

<u>Land-Use Category</u>	<u>Minimum Required</u>	<u>Maximum Permitted</u>
Residential*	20%	50%
Office/Retail and Services	20%	50%
Light Industrial/Flex	10%	30%
Neighborhood Retail and Services	0%	10%
Public Parks, Civic and Open Space	20%	No Maximum
<i>* Residential shall include an adult/retirement housing sub-component with a minimum of 40% of the total units as adult/retirement housing</i>		

<sup>1</sup> Text Amendment Additions = Underlined Text

EXHIBIT 1  
PROPOSED COMPREHENSIVE PLAN AMENDMENTS

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Reason for Change Proposed: The original Toll Road Plan adopted in 1995 identified development nodes along the Greenway from Route 606 to Battlefield Parkway. The purpose of nodal development along the corridor is to "concentrate land use intensities to limit sprawl and reduce public costs; to provide the critical mass needed to support bus and rail transit; to provide a development alternative which promotes the separation of automobile-oriented land uses from transit-oriented land uses and to maintain the efficient operation of the Dulles Greenway." (TRP, page 3-2) The nodes could vary in their function but generally were intended to be mixed use in character (except for specific locations including the subject property). The TRP stated that the land use mix should generally provide a balanced mix of residential (up to 50%) and non-residential (up to 50%) uses. (TRP, page 3-4). The proposed Crosstrail development proposes a land use mix consistent with that envisioned by this TRP policy.

In December of 1998, the County adopted CPAM 1997-0007, which amended the Node Location Map to reflect only three nodes at the eastern end of the Greenway between Routes 772 and 606. In addition, the policies adopted in conjunction with CPAM 1997-0007 tied the mix of land uses back to the General Plan (at that time the Choices and Changes [70/30% mix] and now the Revised General Plan [75/25% mix], which significantly changed the land use mix originally envisioned for the Greenway nodes). We believe the western end of the Greenway, which connects to the Leesburg hub, is ideally suited for a mixed use node and should be developed with a mix that will provide the overall balance [50/50% mix] originally foreseen by the TRP.

Mixed use promotes the work/live environment and establishes an "around the clock" vitality. By its very nature, mixed use creates a place of interest and intermingles all aspects of day to day life. These types of development are active not only during the work week but also during the evenings and weekends. They provide employment, housing, shopping, services and entertainment. They can be a venue for special events and a community gathering spot. Not all properties can or should be mixed use. There are, however, properties which are ideally situated and we believe the Crosstrail site is such a site. (Reference Exhibits 4 and 5 to the CPAM Statement of Justification for the proposed land use mix for the Crosstrail property)

**EXHIBIT 1**  
**PROPOSED COMPREHENSIVE PLAN AMENDMENTS**

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## II. TOLL ROAD PLAN AMENDMENTS

### PROPOSED LAND USE MAP AMENDMENT

**Change Property Designation from Business Employment to Business and Depict Community Shopping Center near Greenway/Battlefield Parkway Interchange on northern half of property.**

*Reason for Change Proposed: The Business Employment designation does not promote a full mix of land uses. The Business designation, however, envisions a mix of uses including employment, open space, civic uses, residential, commercial and recreational facilities as proposed by the Crosstrail plan. In addition, the Town of Leesburg Plan envisions the potential for a major community commercial center in this vicinity.*

### TEXT AMENDMENTS

#### **CHAPTER 2: WATER AND SEWER**

**Page 2-3, Policy 6:** The LCSA will be the primary provider of utility service for the Toll Road planning area. The Town of Leesburg will may provide service to the Leesburg Urban Growth area. Through a mutual agreement among the Town, the County and the LCSA, the Town of Leesburg may provide service to areas west of Goose Creek, while the LCSA will provide service to the rest of the Toll Road planning area.

*Reason for Change Proposed: As noted previously, in April of this year, the County amended the Plan to provide public sewer and water extensions into the Transition Area of the County. This property is immediately adjacent to Transition Areas and the availability of public utilities.*

#### **CHAPTER 3: LAND USE AND COMMUNITY DESIGN**

Amend Policy 6 (Adopted with CPAM 1997-0007) to add the following language:

6. The General Plan policies governing the development of Business Communities apply to the Business Community areas located in the Leesburg Urban Growth Area, including the density and mix prescribed by the General Plan except for the Business Community area west of the Leesburg Airport, between Battlefield Parkway and Crosstrail Boulevard, which shall develop as mixed use consistent with the land use mix ratios defined in the Revised General Plan Joint Land Area Management Policies.

*Reason for Change Proposed: The proposed land use mix ratio envisioned promotes a balance of uses that will foster a vibrant work/live community. By balancing employment and housing opportunities with retail and recreation services this area would enjoy evening and weekend activity beyond the typical work day hours. The western end of the Greenway at the entrance to Leesburg should be developed with a center that will foster a sense of place, provide a range of activities and services, and result in a fiscally positive balanced development that will meet the needs of the community.*

EXHIBIT 1  
PROPOSED COMPREHENSIVE PLAN AMENDMENTS

### III. COUNTYWIDE TRANSPORTATION PLAN

#### REVISED CTP MAP AMENDMENT

**Add a half interchange (access ramps and collector road) between Battlefield Parkway and Crosstrail Boulevard.**

*Reason for Change Proposed:* Provide better access to overall Transportation Network. The proposed access ramps and Collector Distributor Road will not only provide good transportation circulation for the proposed development, it will also improve the access to south Leesburg. Preliminary traffic analysis of the future Battlefield Parkway interchange indicates that the exit onto Battlefield Parkway, for motorists desiring to go into Leesburg, will not function well. Traffic going northbound into Town will need to make a left turn onto Battlefield Parkway. With the addition of the access ramps, the Collector Distributor Road and the construction of the Airport Connector Road, relief will be provided to the Battlefield Parkway interchange. Motorists will be able to exit the Greenway and follow the Collector Distributor Road and make a right onto Battlefield Parkway or follow the ramps into the development street network over to the Airport Connector Road, again affording a right turn into Town. The applicant has met with Dulles Greenway representatives who have indicated their preliminary support to this ramp addition.

#### TEXT AMENDMENTS

##### Appendix 1:

► **R-7      Route 267 (Dulles Greenway) (page, Appendix 1-21)**

Location/Segment: Dulles North and Leesburg Areas (Suburban, Transition and Town Policy Areas)/Route 28 at Fairfax County line northeast to Route 15/7 Bypass

Existing Condition:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four to six lanes/250-foot ROW

Description: R4M/R6M. Limited access median divided rural toll arterial with grade separated interchanges at 1) Route 28; 2) Route 606; 3) Loudoun County Parkway; 4) Route 772; 5) Claiborne Parkway; 6) Route 659; 7) Route 15/7 Bypass. >60 mph design speed.

Ultimate Condition:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/250-foot ROW

**EXHIBIT 1**  
**PROPOSED COMPREHENSIVE PLAN AMENDMENTS**

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Description: R6M. Limited access median divided rural toll arterial with additional grade separated interchanges at 1) Crosstrail Boulevard; 2) Route 643; 3) Battlefield Parkway. Ramp access with Collector Distributor road between Crosstrail Boulevard and Battlefield Parkway. >60 mph design speed.

► **L-9 Airport Area Connector (page, Appendix 1-77)**

Location/Segment: Leesburg Area (Town Policy Area) Battlefield Parkway south to Crosstrail Boulevard, just east of the Dulles Greenway

Ultimate Condition:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120 foot ROW

Description: U4M. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.



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703.729.8500  
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November 21, 2006

Scott K. York, Chairman  
Loudoun County Board of Supervisors  
1 Harrison Street, S.E., 5th Floor  
P. O. Box 7000  
Leesburg, Virginia 20177-7000

Re: **Crosstrail; ZMAP 2005-0011; CPAM 2006-0002**

Dear Chairman York:

In response to comments received at the public hearing of the subject applications, the applicant has made the following changes to the proposed concept plan:

- We have reduced the total number of dwellings that may be constructed on the Crosstrail property to 1,100 dwellings and have agreed to limit the type of dwellings to multi-family dwellings within the town center (482 units) and active adult units to the south of the town center 216 multi-family units, 109 single family detached units, and 293 townhouse units.
- The market rate single family attached dwelling units previously proposed at the northwest corner of Hawling Farm Boulevard and Crosstrail Boulevard have been removed and the area is replanned for some of the active adult units cited above plus 52.4 acres of parkland, including an adult softball field, volleyball courts and a dog park. The parkland is located in an area where pilots using the Leesburg Executive Airport have stated they occasionally operate their aircraft, notwithstanding the flight operation patterns recommended by the FAA.
- A 10 acre area west of the Leesburg Executive Airport has been reserved for sale to the Town of Leesburg to address the Town's desire to expand and improve the profitability of the Leesburg Executive Airport.

- Although The Peterson Companies currently enjoys access to Battlefield Parkway from the Crosstrail property across Town-owned property, The Peterson Companies have voluntarily agreed to relinquish such access without receipt of consideration to address concerns of the Town of Leesburg and the Federal Aviation Administration ("FAA") concerning the impact which use of such easement may have upon the instrument landing system proposed to be constructed at the Leesburg Executive Airport. The Peterson Companies has also conveyed forty-five acres of its property to the Town of Leesburg to improve the safety of the Leesburg Executive Airport.

Development of 52.4 acres of Crosstrail with parkland rather than housing results in 22% of the land area within Crosstrail being devoted to residential uses and creates a land use mix that is consistent with the residential recommendations of the Revised General Plan's Business Land Use policies. As you know, development in areas designated as Business Land Use is encouraged to incorporate the land use mix recommended for Regional Office, Light Industrial or High Density Residential communities, essentially single use districts with other uses as accessory or supportive uses..

While we believe that Crosstrail is broadly consistent with the Regional Office land use mix, given the significant scale of proposed office use and the high proportion of open space, to avoid any confusion the Crosstrail CPAM proposes to augment the Business Land Use options with a mixed use framework that provides an even balance between regional office, light industrial, open space and residential uses. The following table compares the land use ranges recommended by the Revised General Plan for areas planned for "Business Land Use" – Regional Office and Light Industrial Communities – with the land use range proposed by the Crosstrail CPAM and the actual land use mix proposed with the Crosstrail ZMAP:

	Business Land Uses						
	Range of Land uses by acreage (percentage)						
	Crosstrail ZMAP (proposed)	Crosstrail CPAM (proposed)		Regional Office		Light Industrial	
		Min	Max	Min	Max	Min	Max
Office/Emp	26.3	20	50	50	70	0	40
Retail	6.1	0	10	0	10	0	10
Residential	21.6	20	50	15	25	0	25
LI/Flex	10	10	30	0	20	45	85
Open Sp	30.2	20 (total)	no max	10		10	
Civic	5.5		no max	5		5	

We note that both Regional Office and Light Industrial communities support up to 25% of the land use as residential, and Crosstrail's revised land use plan proposes an even smaller proportion of the site for residential. To ensure consistency with the residential policies of the other types of Business Communities, we would support revising the land use range proposed in the Crosstrail CPAM to a maximum residential proportion of 25%.

We note that the proposed land use mix for Crosstrail is also consistent with the Regional Office Policies of the Town Plan. For more than twenty years, the Town of Leesburg has identified the land on either side of East Market Street from the Bypass to the eastern Town limits as an area appropriate for Business I, regional office uses. In November 2005, Town Council amended the Town Plan and approved a rezoning of the Village of Leesburg property, approximately 150 acres of real property located on the south side of East Market Street at the intersection of River Creek Parkway. Town Council has held up the Village of Leesburg as a project they support because it is fiscally positive and will provide regional transportation facilities. The Village of Leesburg is consistent with Town Plan mixed use goals and the "Optional Uses and Design" opportunity in the Town Plan which permits "individual projects [to] include up to 50 percent combined retail and residential use, such combination not to exceed 25 percent residential or 35 percent retail". Town Plan, p. LU-19. Although the policies of the Town Plan do not govern development of the Crosstrail property, it is worth noting that the Land Use Mix illustrated on the enclosed Exhibit 4 that would be applicable if the applicant's plan amendment is approved is consistent with the optional land use policies of Regional Office in the Town Plan. Crosstrail will be developed with only 22% residential uses, 26% office/retail and service, 10% industrial uses, 6% neighborhood retail uses, 30% public parks and open space and 6% civic and open space uses. The resulting mixture of uses proposed for Crosstrail consistent with the Revised General Plan Business Land Use policies proposed for the Crosstrail property and the Town Plan optional policies for Regional Office areas.

The applicant has enclosed materials that illustrate the changes to the application made to address comments made at the public hearing. The applicant looks forward to answering any questions members of the Board of Supervisors may have at the November 27, 2006, Committee of the Whole meeting. Please let me know if you or any member of the Board of Supervisors have questions about any portion of this letter or its enclosures.

Very truly yours,

  
Michael A. Banzhaf

MAB/bmb  
Enclosures

cc: Kirby Bowers  
Linda Neri  
Denise Reyes  
Susan Berry-Hill  
Lou Mosurak

**November 27, 2006  
Supervisor Sally Kurtz  
Catoctin District  
Committee of the Whole Worksession on Crosstrail**

This is a Comprehensive Plan Amendment for central Loudoun and needs the same consistent approach to housing policies as was approved for the Arcola/Rt 50 area.

**CPAM 2006-0002 Crosstrail**

**Motion: Add Policies  
Unmet Housing Needs**

- 1. The County encourages a variety of housing types and innovative designs to be developed in mixed-use communities to assist fulfilling unmet housing needs.**
- 2. The County will identify options for unmet housing needs in the Leesburg area not covered by the ADU zoning ordinance and work toward an implementation plan.**
- 3. Developers of residential and mixed-use projects are encouraged to include proffers to fulfill unmet housing needs in their development proposals.**
- 4. The County will explore options for the creation of programs, tools, and incentives both publicly and privately developed that will fulfill unmet housing needs.**
- 5. The County will examine the authority to establish and use the benefits of Housing Trust Funds to help fulfill unmet housing needs.**
- 6. The County will encourage public and private initiatives to provide increased housing opportunities for residents and the local workforce. Both programmatic and design approaches will be encouraged in all projects to fulfill unmet housing needs.**

**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**DATE:** November 29, 2006  
**TO:** Board of Supervisors  
**FROM:** Susan Berry Hill, Project Manager  
Joe Gorney, Senior Planner

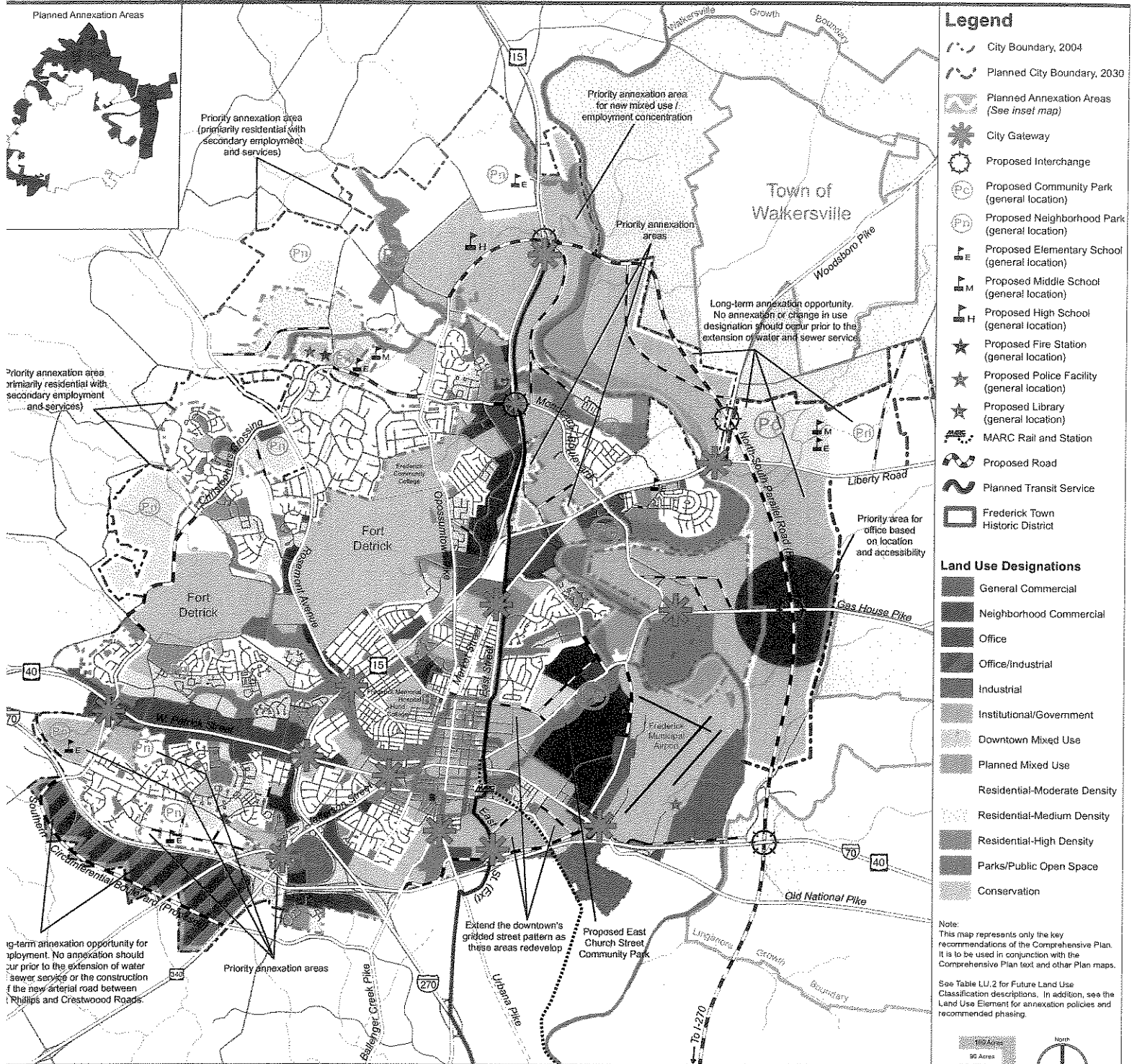
**SUBJECT: CPAM 2006-0002, Crosstrail – Comparative Information on Regional Airports and Adjacent Land Use**

The attached information was distributed to the Board at the November 20, 2006, worksession. The Leesburg Executive Airport could be compared to the four airports that are referenced in this information: Frederick, Gaithersburg, Manassas, and Centennial, Colorado. These airports are public, full service, general aviation airports similar to Leesburg Airport. Each airport has plans for growth in the commercial aviation sector as does the Leesburg airport. For the three airports in our region, the enclosed information includes aerials and/or vicinity maps, planned land use, and zoning information.

ATTACHMENT 4a

A10

# City of Frederick, Maryland Comprehensive Plan Map, 2004



## Legend

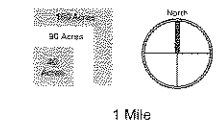
- City Boundary, 2004
- Planned City Boundary, 2030
- Planned Annexation Areas (See inset map)
- City Gateway
- Proposed Interchange
- Proposed Community Park (general location)
- Proposed Neighborhood Park (general location)
- Proposed Elementary School (general location)
- Proposed Middle School (general location)
- Proposed High School (general location)
- Proposed Fire Station (general location)
- Proposed Police Facility (general location)
- Proposed Library (general location)
- MARC Rail and Station
- Proposed Road
- Planned Transit Service
- Frederick Town Historic District

## Land Use Designations

- General Commercial
- Neighborhood Commercial
- Office
- Office/Industrial
- Industrial
- Institutional/Government
- Downtown Mixed Use
- Planned Mixed Use
- Residential-Moderate Density
- Residential-Medium Density
- Residential-High Density
- Parks/Public Open Space
- Conservation

Note: This map represents only the key recommendations of the Comprehensive Plan. It is to be used in conjunction with the Comprehensive Plan text and other Plan maps.

See Table LU.2 for Future Land Use Classification descriptions. In addition, see the Land Use Element for annexation policies and recommended phasing.



Approved by the Mayor and Board of Aldermen by Resolution 04-28 on September 16, 2004

*Jennifer P. Dougherty*  
JENNIFER DOUGHERTY, MAYOR

## Introduction Statement

City of Frederick, Maryland is one of the most historic and charming communities in the country, a city with a strong sense of place, a rich heritage, and a robust and diverse economy. Its vibrant and varied downtown is surrounded by walkable neighborhoods, employment centers and mixed use areas where residents are afforded both scenic views of the downtown skyline and the Catoctin Mountains.

City of Frederick has grown in a manner that is fiscally and environmentally sound and that has led growth with adequate infrastructure. Rather than trying to stop growth altogether and remain a small town or become a large city due to unregulated growth, the City of Frederick has chosen to manage its growth so that it has become an urban employment and residential center while maintaining its downtown charm, unique historic heritage, and exceptional quality of life.

Characteristics that define the City of Frederick's exceptional quality of life include:

- a thriving downtown,
- local and plentiful job opportunities,
- convenient and multi-modal transport options,
- adequate sanitary sewer treatment and water supply systems,
- a range of housing opportunities,
- quality education for all ages,
- quality health care,
- an intact and thriving Frederick Town Historic District,
- vibrant arts and entertainment,
- abundant parks and recreation,
- healthy and protected natural resources, and
- an open community partnership between citizens, businesses, and government.

## Organizing Themes

This Plan's recommendations are guided by five themes that serve as the Plan's overall goals. These themes are used to organize each of the Plan's elements. They express and reinforce the major concerns the Plan seeks to address and the issues raised by stakeholders.

### Balancing Growth

This theme relates to the need to manage growth and a wide variety of activities that affect the overall quality of life in the City. The theme encompasses such issues and recommendations as environmental protection, growth management, annexation, future land use, and the adequacy and delivery/timing of infrastructure in a fiscally responsible manner.

### Enhancing Mobility, Accessibility and Connectivity

This theme addresses the need to facilitate motor vehicle movement (mobility) and the need to balance that with the ability and desire of people and business to reach desired places and activities (accessibility). The recommendations under this theme address such issues as reducing roadway congestion, the need for increased connectivity of the City road network and among different land uses, multi-modal transportation choices, the enhancement of the pedestrian and bicycle systems, and the Frederick Municipal Airport. Recommendations also address ways to reinforce community connectivity via improved communication and information exchange.

### Enhancing the Community

This theme focuses on improvements to the quality of life beyond the provision of housing, employment, basic environmental protection and public services. The recommendations under this theme address such issues as the preservation of the City's historic architectural and landscape legacy, enhancement of community character and application of urban design guidelines, and creation and enhancement of civic spaces/gateways and cultural amenities.

### Supporting a Vibrant Downtown

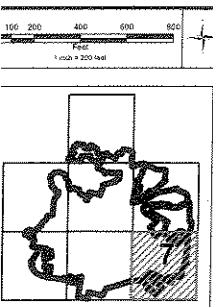
The recommendations under this theme address the special role and needs of Frederick downtown. The recommendations address such issues as downtown business development, housing and mixed use development, arts and entertainment, traffic and circulation, pedestrian mobility, parking and redevelopment issues.

### Interacting with the Region

The recommendations under this theme address the need to foster interjurisdictional and institutional cooperation. The recommendations address such issues as County-City-State coordination on infrastructure provision, environmental protection, regional planning, and transportation.



















ALL









\*Addresses in Red

### Zoning Districts



 R4 (Residential 4 units per acre)	 GC (General Commercial)	 MU1 (Mixed Use)	 DR (Downtown Residential)
 R6 (Residential 6 units per acre)	 NC (Neighborhood Commercial)	 M1 (Light Industrial)	 DB (Downtown Business)
 R8 (Residential 8 units per acre)	 PB (Professional Business)	 M2 (Heavy Industrial)	 DBO (Downtown Business Office)
 R12 (Residential 12 units per acre)	 RO (Residential Office)	 MO (Manufacturing/Office)	 RC (Resource Conservation)
 R16 (Residential 16 units per acre)			
 R20 (Residential 20 units per acre)			

---

### Floating Districts






 IST (Institutional)	 PRK (Parkland)	 MXE (Mixed Employment)	 MU2 (Mixed Use)
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### PND (Planned Neighborhood)

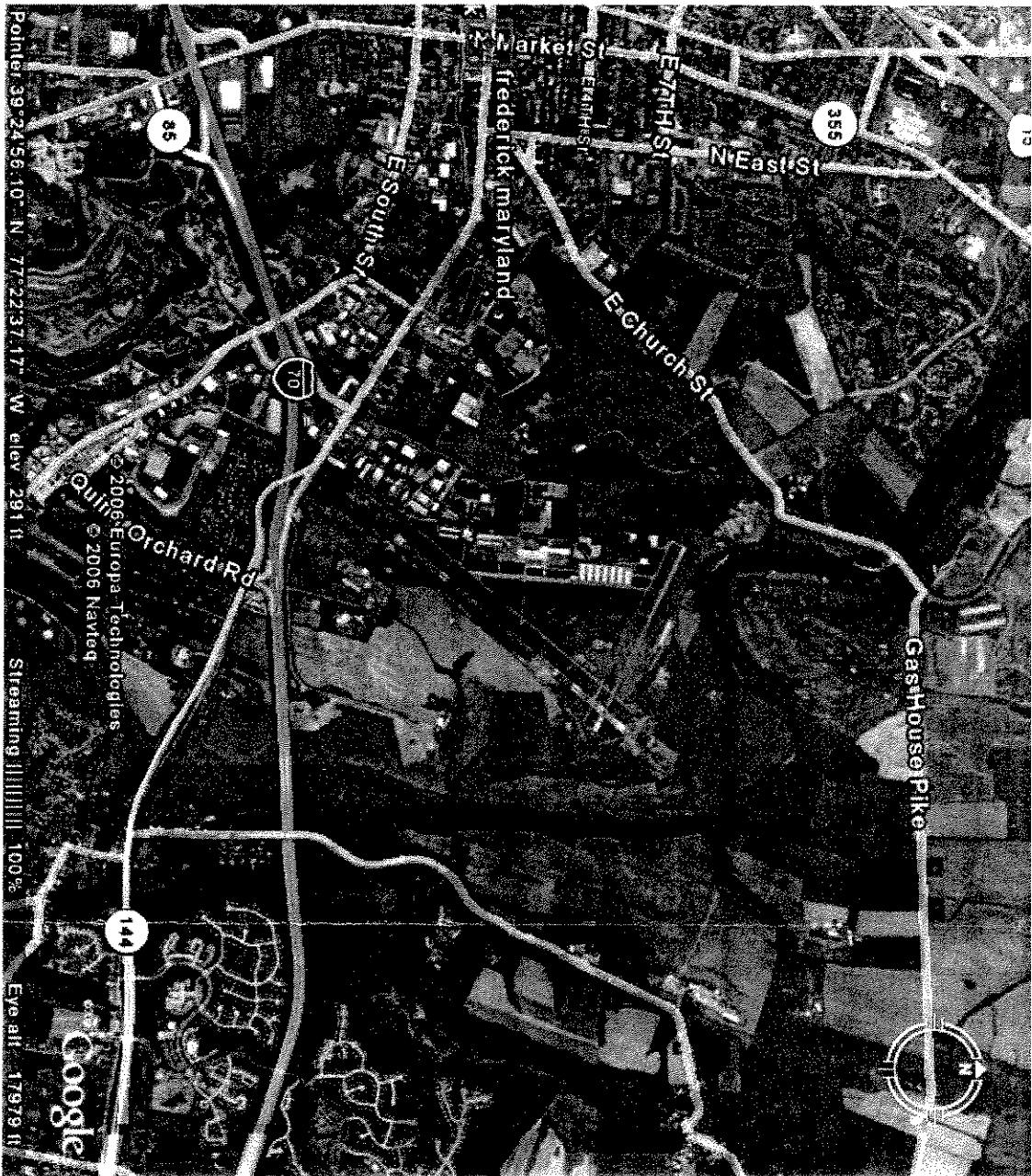
 Boundary	 Commercial Area
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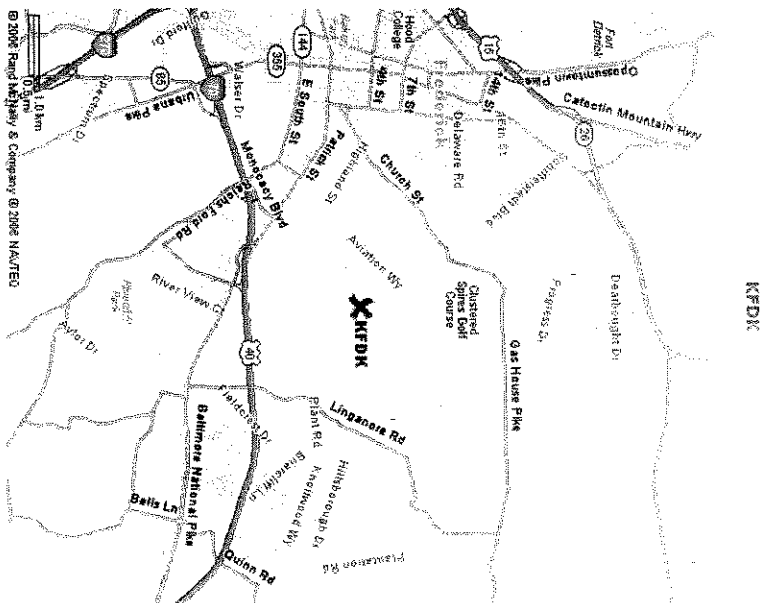
### Overlay Districts

 HDO (Historic District)	 CCO (Carroll Creek District)	 WHO (Wellhead Protection)	 AO (Airport)	 HND (Highway Noise)
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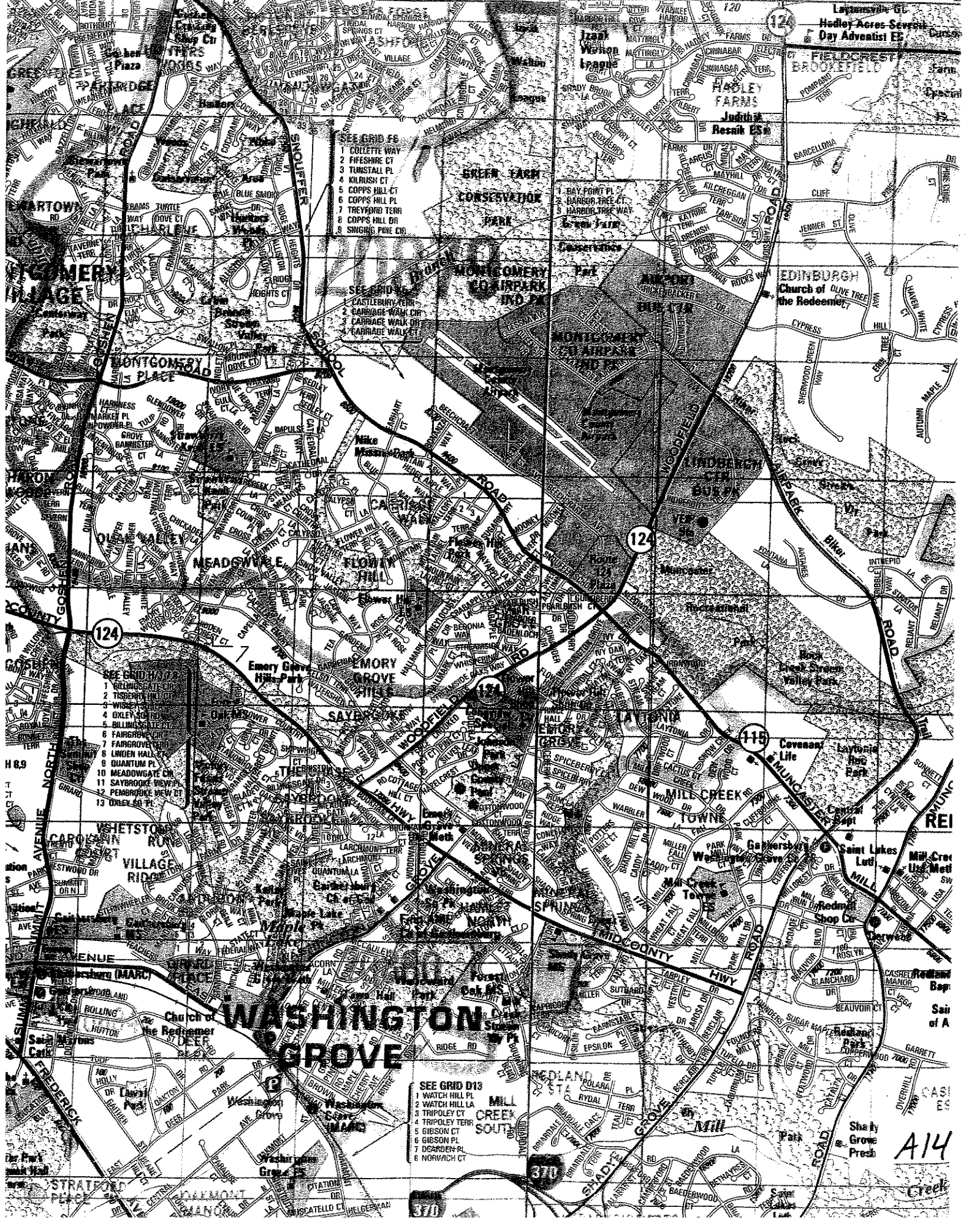
[illegible]



FREDERICK MUNICIPAL AIRPORT, MD, FDK  
 303' MSL  
 RWY 05/23 - 5220' X 100'  
 RWY 12/30 - 3400' X 75'







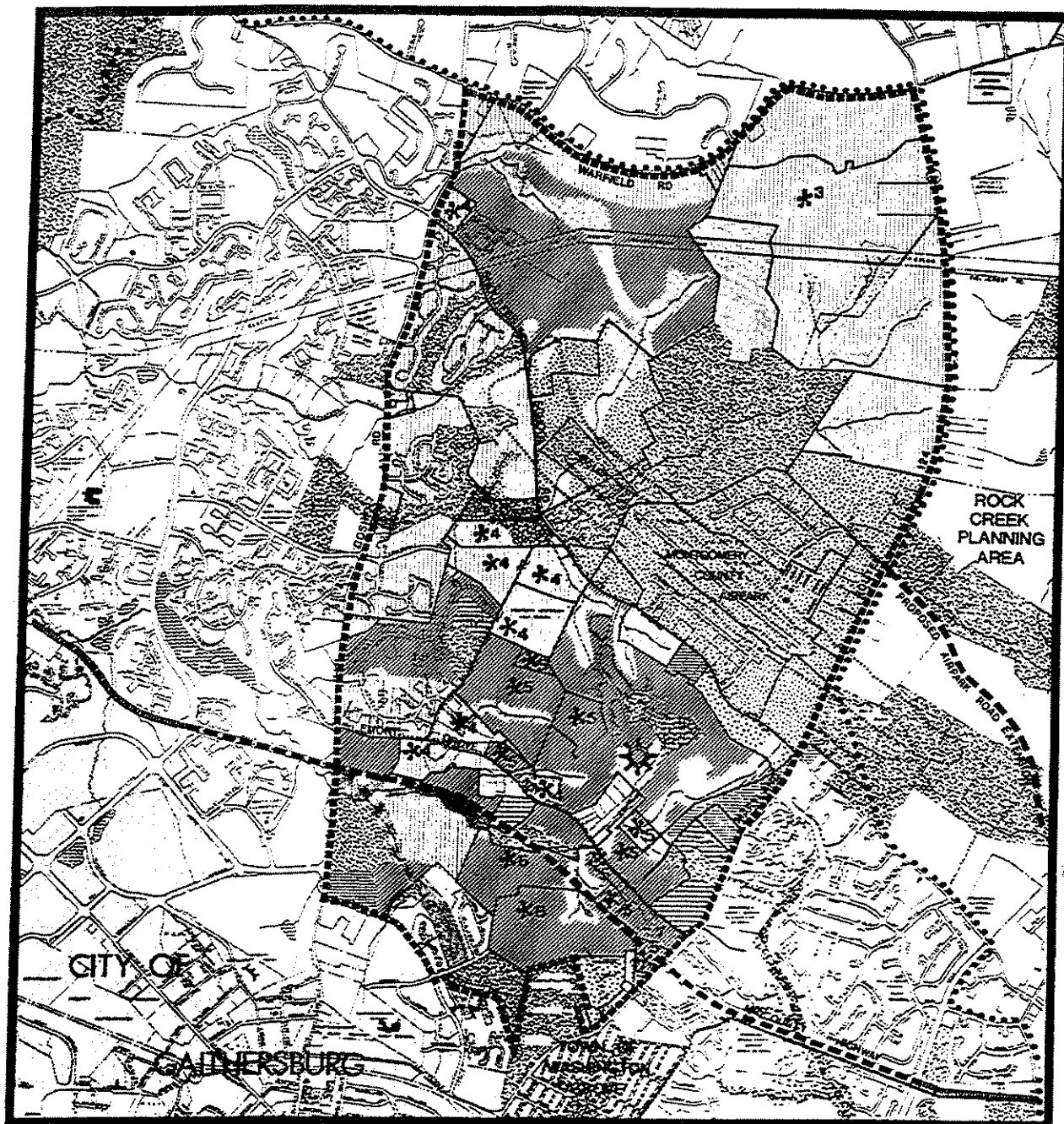
- SEE GRID F6
- 1 COLETTE WAY
  - 2 FRESHWATER CT
  - 3 TURNSTALL PL
  - 4 KILBUSH CT
  - 5 COPPS HILL CT
  - 6 COPPS HILL DR
  - 7 TREYFORD TERR
  - 8 COPPS HILL DR
  - 9 SINGING PINE CH

- SEE GRID D13
- 1 CASTLEBURY TERR
  - 2 CARRIAGE WALK CH
  - 3 CARRIAGE WALK DR
  - 4 CARRIAGE WALK CT

- SEE GRID HAD2
- 1 BELLINGHAM DR
  - 2 TISBURY DR
  - 3 WISCONSIN DR
  - 4 OXLEY DR
  - 5 BILLINGHAM DR
  - 6 FAIRGROVE DR
  - 7 FAIRGROVE DR
  - 8 LINDEN HALL CT
  - 9 QUANTUM PL
  - 10 MEADOWGATE CH
  - 11 SAYBROOK VIEW CT
  - 12 PEMBERGUE VIEW CT
  - 13 OXLEY DR

- SEE GRID D13
- 1 WATCH HILL PL
  - 2 WATCH HILL LA
  - 3 TRIOLEY CT
  - 4 TRIOLEY TERR
  - 5 GIBSON CT
  - 6 GIBSON PL
  - 7 GIBSON PL
  - 8 NORWICH CT

A14  
Creek



## AIRPARK AREA-RECOMMENDED LAND USE

..... Planning Area Boundary

----- Study Area Boundary

☀ Planned Neighborhood (Flower Hill)

\*5 TDR Density

□ Municipalities

Single-Family Residential

□ Suburban 2-4 Units/Acre

▨ Medium-Density 5-6 Units/Acre

▩ Multi-Family

▬ Commercial (Retail & Office)

Industrial Park

Private Open Space

Institutional

Parks

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Montgomery County Maryland

January, 1985

▲ NORTH

Fig. 14

- Providing access from MD 28 and Shady Grove Road (at Life Sciences Center entrance);
- Retaining the woods in the stream valleys;
- Locating the stormwater management ponds upstream from the woods in the valley;
- Protecting steep slopes and stream valleys;
- Providing noise attenuation by devices such as landscaped berms along Shady Grove Road, MD 28, and proposed Key West Avenue Extended; and
- Providing larger lots along MD 28 to maintain the existing visual character along that roadway.

### AIRPARK STUDY AREA

This area is characterized by three major land use elements: industrial areas, residential areas, and the Montgomery County Airpark. The Airpark, the area's most prominent land use, is flanked by industrially zoned land, with areas of parkland off either end of the runway. These land uses separate the Airpark from the existing and future residential communities that constitute the remainder of the Study Area. The residential communities are diverse and include a wide range of densities, types of units, and types of tenure.

One of the major concerns of this Plan is the capacity of the master-planned roadway network as compared to the traffic generated by land use in the area and the traffic passing through the area. To address this concern, the Plan makes the following recommendations:

- A new road, Airpark Road Extended (A-268), should be constructed to provide parallel service to Muncaster Mill Road from MD 124 to proposed Shady Grove Road Extended. This road will provide much-needed, additional east-west traffic capacity. Without Airpark Road Extended, Muncaster Mill Road will eventually operate at an unacceptable level of service; and
- The majority of undeveloped industrial land adjacent to the Airpark is recommended for I-4 zoning. In the I-4 Zone, general offices are a special exception use. In reviewing applications for general offices, the Planning Board will review whether the traffic generated by the office development is compatible with the capacity of the roadway network.

Unlike Shady Grove West, the land use pattern in the Airpark Study Area is largely established. Instead of proposing new plan concepts for extensive amounts of vacant acreage, this Plan addresses land use and zoning for relatively small parcels surrounded by existing development. For this reason, most of the land use and zoning recommendations are presented in a tabular form at the end of this section.

### Land Use Plan Objectives

- To create a transition from the more urbanized I-270 corridor to the wedge area north and east.

- To reflect the capacity of the master-planned roadway network in land use recommendations.
- To channel employment and higher residential densities to areas which can be efficiently and effectively served by mass transit.
- To channel non-residential land uses to areas most affected by Airpark noise.
- To provide additional acreage for incubator industrial uses.

#### Montgomery County Airpark

One of the major influences upon land use in the Airpark Study Area is the Montgomery County Airpark.

The Montgomery County Airpark is a small, general aviation airport located approximately seven miles from I-270 in the central portion of Montgomery County. Over 300 airplanes are based at the Airpark; most of these aircraft are of the single- and twin-engine propeller type. A substantial percentage of the flight operations consists of touch-and-go training flights in single-engine light aircraft. This type of aircraft usually generates relatively low noise levels. The corporate executives who use the Airpark use larger single-engine and small twin-engine aircraft, which provide corporate personnel transportation to and from other airports in the mid-Atlantic states. In 1980 there were approximately 131,000 operations (landings and takeoffs), making this Airpark the second busiest general aviation facility in the Washington metropolitan area.

The Airpark's runway is oriented northwest to southeast. (See figure 11.) The preferred takeoff is to the southeast (Runway 14) when the wind is from the east or south, or when there is no significant wind blowing. Runway 32 is used when the wind is from the west or north. The prevailing wind conditions around the Airpark dictate use of Runway 32 for approximately 60 percent of the takeoffs, and Runway 14 for the remaining 40 percent.

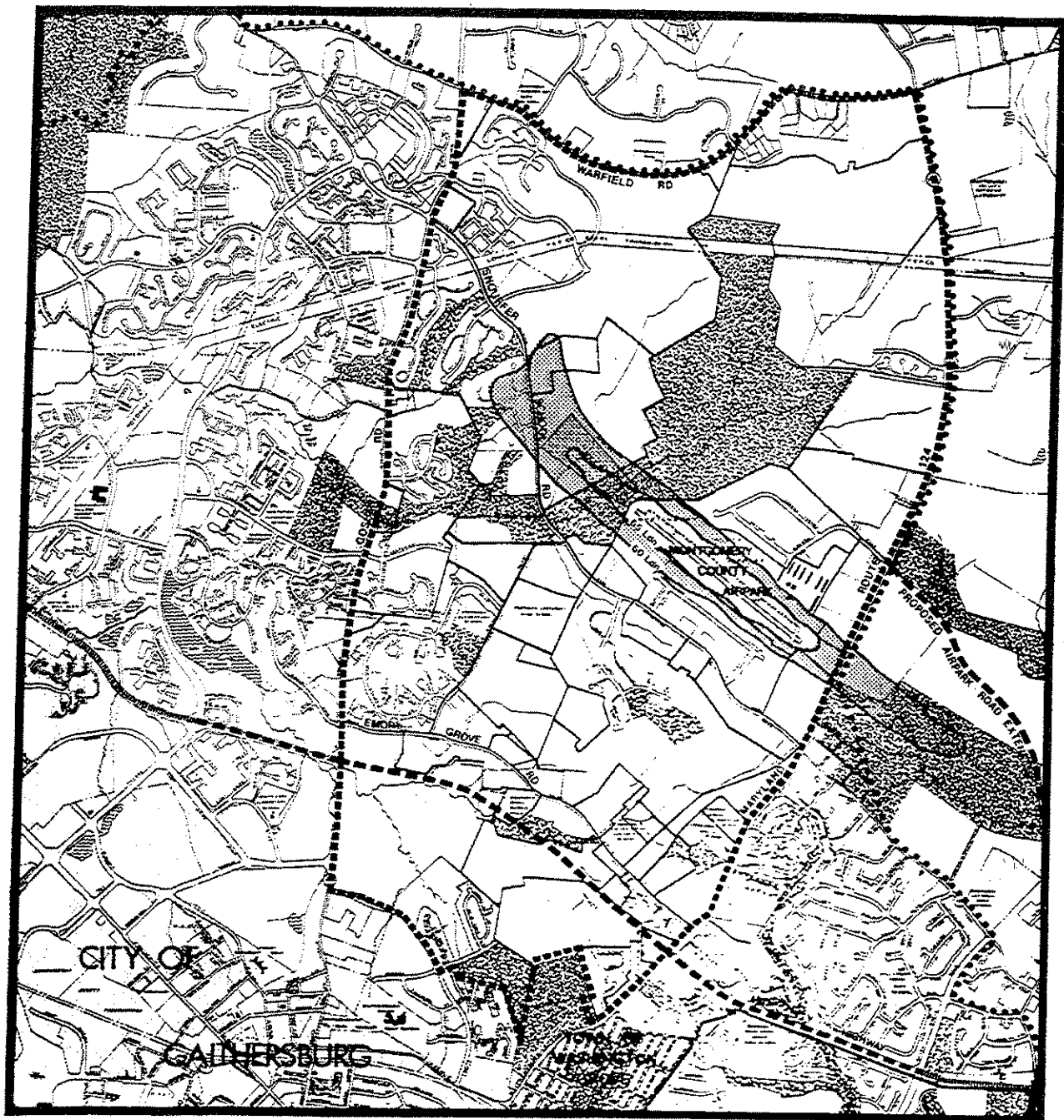
Established flight paths in the vicinity of the Montgomery County Airpark are based on a racetrack pattern with the backstretch, or downwind leg, paralleling the runway to the northeast. Incoming flights enter the pattern at the far turns of the racetrack pattern. (See figures 12, 13.) Pilots taking off toward the northwest usually make a tight, 20-degree right turn over Snuffer School Road in order to avoid overflight of the existing residential area. This atypical flight path, known as the "Gibson turn," was established as residential development began to appear around the airport.

Saturday is generally the busiest day of the week at the Airpark. The busiest days of the year are usually Saturdays in May, June, and July, since there are more hours of daylight during these months.

The operation of an airpark raises many planning concerns, in particular noise and safety impacts on surrounding land uses. Detailed studies concerning both issues are included in the Technical Appendix. The conclusions of these studies are as follows:

- Noise and safety impacts, although important, are not severe enough to justify relocating or terminating the Airpark's operation;





## NOISE CONTOURS-YEAR 2000

..... Planning Area Boundary

Below 60 Ldn

Municipalities

Equal To Or Greater Than 65dBA Ldn

60-64 Ldn

SOURCE: Preliminary Data By State Aviation Administration

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Montgomery County Maryland

January, 1985

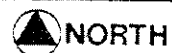


Fig. 11

- Land use proposals in the Airpark vicinity should locate non-residential uses in noise-impacted areas; and
- While the likelihood of planes crashing into homes is extremely remote, residential development in the vicinity of the Airpark should, if possible, provide contiguous open space for possible emergency landings.

This Plan supports the designation of an Airpark Noise Zone by the State Aviation Administration (SAA) and the Montgomery County Revenue Authority. This Noise Zone will include any area of land surrounding the airport within which the cumulative noise exposure level will be equal to or greater than the standard set for cumulative noise exposure (65 dBA Ldn for residential uses). The SAA will adopt the Noise Zone following public hearings and local government review. It will include a Noise Abatement Plan to ensure, insofar as possible, that the projected noise contours will be reduced to levels compatible with existing and planned land uses in the vicinity. This Noise Abatement Plan will use the land use and zoning recommendations of this Plan as the basis for developing its guidelines.

Listed below are examples of the general types of noise abatement actions which the Revenue Authority might review and analyze for possible inclusion in the Noise Abatement Plan.

- Increase pattern altitude.
- Modify runway and flight path use.
- Restrict noisy maintenance operations.
- Relocate runways or certain types of operations.
- Acquire property when other noise abatement measures are not possible.

To assure that noise problems are promptly identified and addressed, the Revenue Authority should consider the following programs:

- noise complaint hot line;
- noise monitoring;
- full-time noise abatement staff; and
- airport operations advisory committee with both user and community representation.

This Plan has channeled non-residential uses to properties lying within the 60 Ldn noise contours. A new zoning category, the I-4 Zone, was developed to address the problems related to industrial land use in this part of the Study Area.

This Plan recommends against any future extension of the runway because of the potential impact on future land use and on existing residential development. This recommendation is not intended to inhibit the Airpark's operational expansion, however, and relates only to physical expansion. In evaluating any proposals for facility or operational modifications that might emerge from the SAA study regarding the establishment of an Airport Noise Zone, it will be necessary to determine their potential consequences--as well as their intent--in terms of safety, noise, and operational capacity. Therefore, no physical improvements or changes should be made to the Airpark pending the completion of the SAA study.

A Task Force has been established by the County Council to assess the importance (or necessity) of having an airpark located in Montgomery County and, if an airpark is deemed important, to evaluate its current location and either

develop recommendations for strengthening support for its current location or recommend alternative locations. The land use pattern proposed by this Plan should be re-examined in light of the findings of the Task Force.

#### Relationship of Airpark to Rock Creek Planning Area

Recent SAA studies show projected noise for the year 2000 to be at levels (less than 60 dBA Ldn) which would be acceptable for residential development for all but a small portion of the Rock Creek Planning Area. This Plan reflects these noise projections.

This Plan supports light industrial land use in accord with the Low-Intensity, Light Industrial (I-4) Zone for 72 acres in the Rock Creek Planning Area that is partially affected by Airpark noise. A buffer between industrial and future residential uses will be provided through the requirements of the I-4 Zone. The permitted building and parking coverage on this parcel may be further constrained as a result of additional environmental analyses. The Rock Creek Master Plan recommends a water/sewer policy for the I-4 area and discusses land uses in this area in more detail.

The Transportation Plan recommends that a new arterial roadway, Airpark Road Extended (A-268), be built through the Rock Creek Planning Area. The proposed road would extend from the existing Airpark Road parallel to Muncaster Mill Road from MD 124 to proposed Shady Grove Road Extended. (See the Transportation Plan Chapter for additional information.) Without this roadway, Muncaster Mill Road between MD 124 and Shady Grove Road would operate at an unacceptable level of service given the projected traffic volumes generated by the full development of the Gaithersburg area as envisioned by this Plan.

The impact of this road on surrounding land use has been studied as part of the Rock Creek Master Plan Amendment process.

#### LAND USE AND ZONING RECOMMENDATIONS BY DISTRICT

The Land Use Plan for the Airpark Study Area is shown in figure 14; the Recommended Generalized Base Zoning is shown in figure 15.

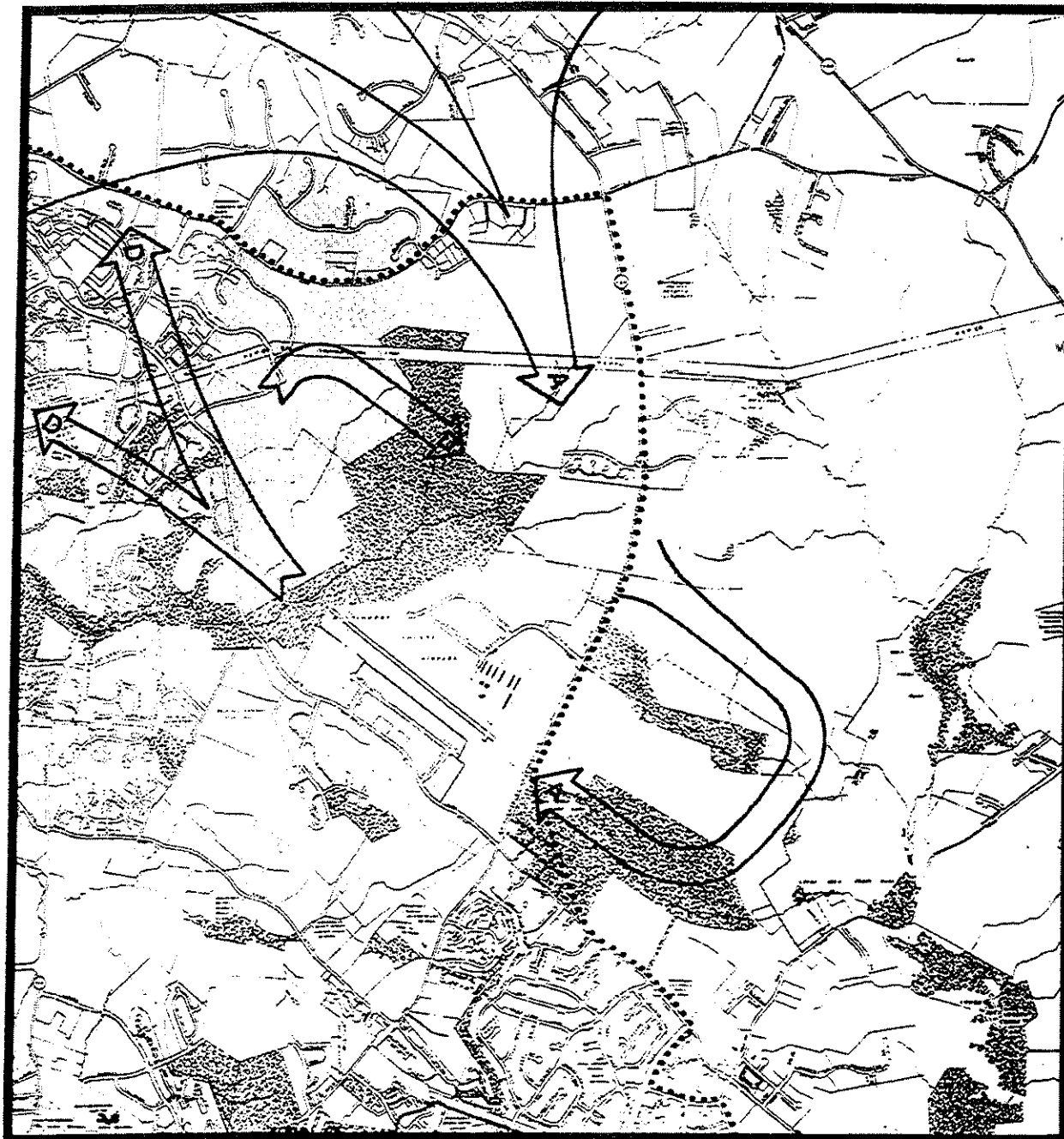
Like the Shady Grove West Study Area, the Airpark Study Area is so large that it must be divided into districts for purposes of planning analysis. These analysis districts are as follows:

- Midcounty Highway District
- Flower Hill District
- Airpark District

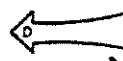


The boundaries of these districts are shown on the Airpark Area Analysis Areas map (figure 16). Table 3 is a zoning summary by analysis area.

#### Midcounty Highway District

The Midcounty Highway District includes Analysis Areas 1 through 13. These properties, all lying south of Emory Grove Road, will be affected by their proximity to the proposed Midcounty Highway. The design of this and other highways planned for this area should consider the need for noise abatement and protection of stream valleys.



## MONTGOMERY COUNTY AIRPARK AIRCRAFT FLIGHT OPERATIONS-NORTH OPERATIONS\*

-  North Departures (Takeoff)
-  North Approach (Landing)
-  Approximate Overflight Area While in Flight Pattern
- \* Runway 32
- \* Flight Pattern Altitude Is Approximately 600' Above Ground Elevation

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Montgomery County Maryland

January, 1985

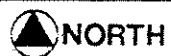
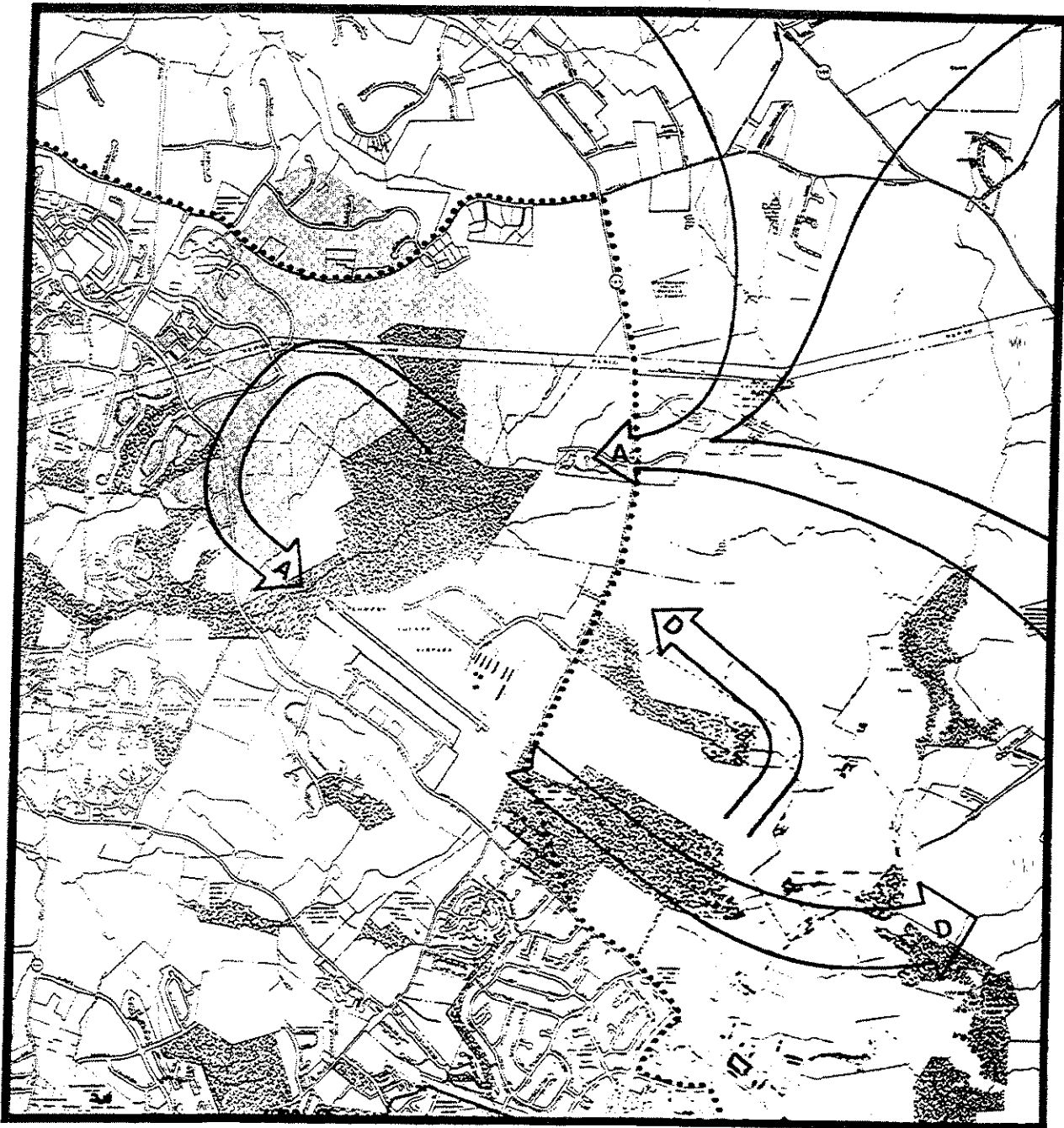


Fig. 12





## MONTGOMERY COUNTY AIRPARK AIRCRAFT FLIGHT OPERATIONS-SOUTH OPERATIONS\*



South Departures (Takeoff)

South Approach (Landing)

Approximate Overflight Area While In Flight Pattern

\*Runway = 14

\*Flight Pattern Altitude Is Approximately 600' Above Ground Elevation

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Montgomery County Maryland

January, 1985

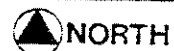
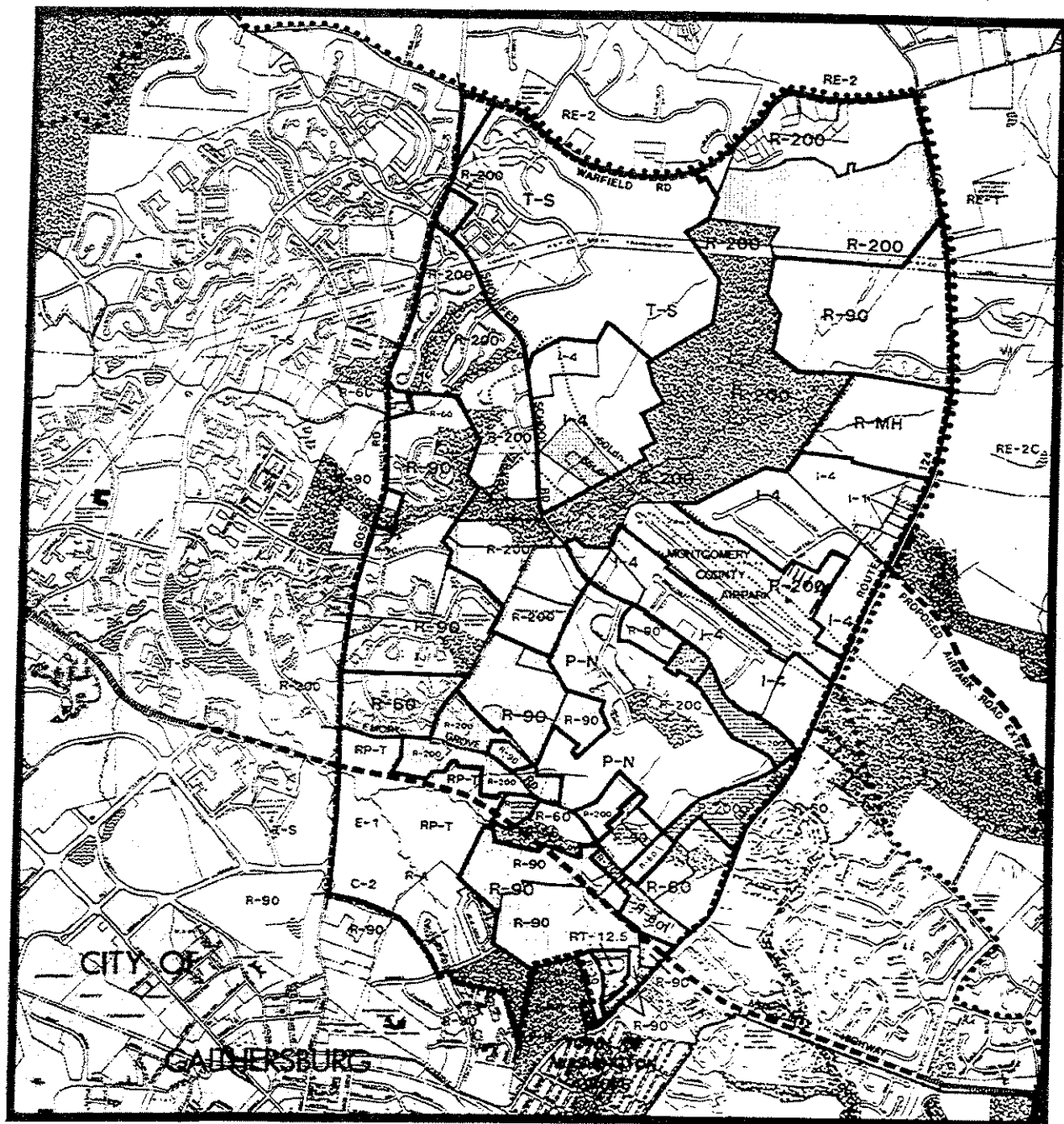


Fig. 13



## AIRPARK AREA-RECOMMENDED GENERALIZED BASE ZONING

- ..... Planning Area Boundary
- Study Area Boundary
- Projected Noise Contours
- Municipalities

- Parks
- Properties Recommended For PN Zone
- Proposed TDR Receiving Areas

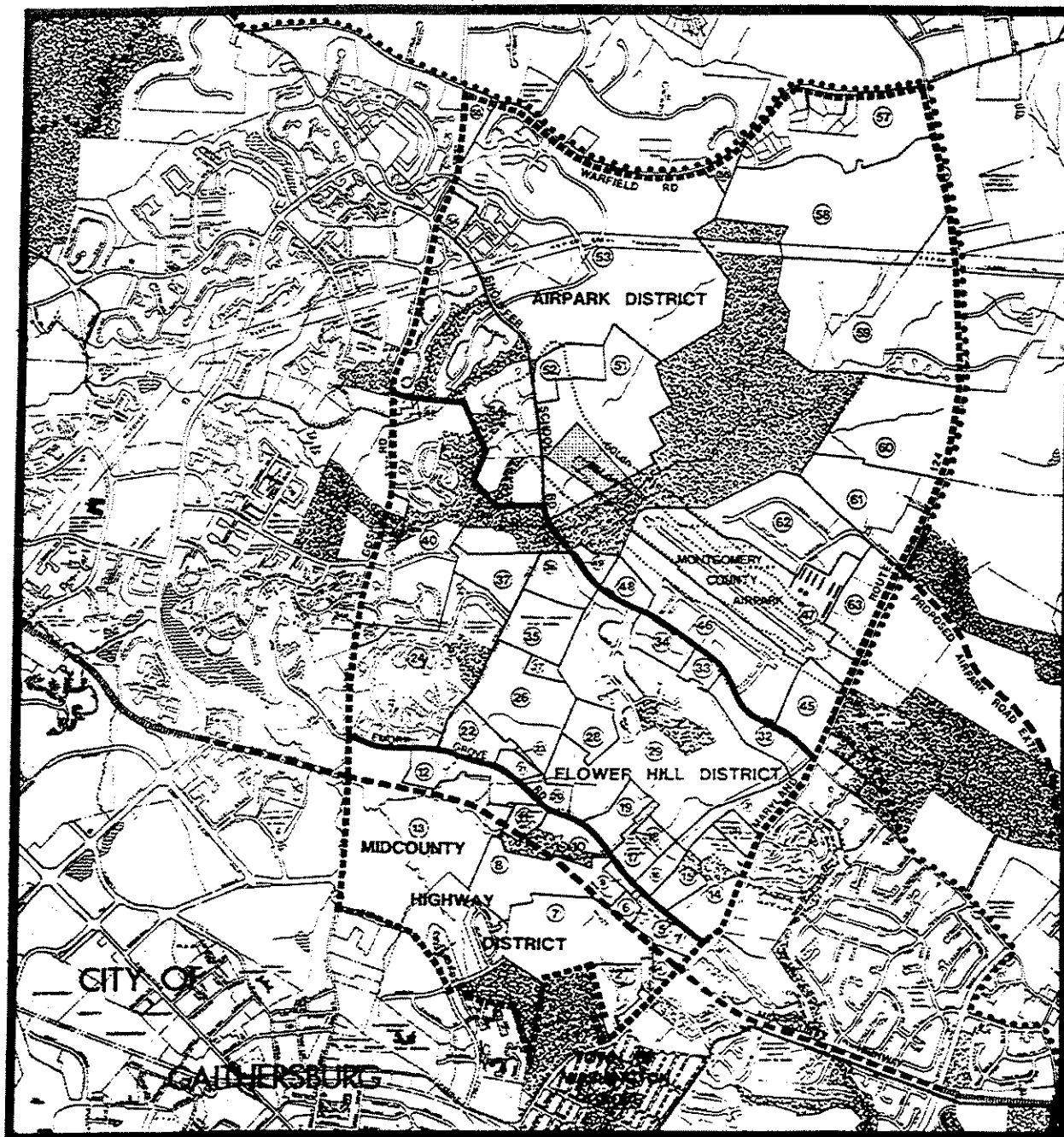
NOTE: See Fold Out Map For Details

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Montgomery County Maryland

January, 1985



Fig. 15



## AIRPARK AREA-ANALYSIS AREAS

- ..... Planning Area Boundary
- Study Area Boundary
- Proposed Highway
- ..... Projected Noise Contours
- Municipalities



Parks

Midcounty Highway District: 1-13

Flower Hill District: 14-43

Airpark District: 44-63

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Montgomery County Maryland

January, 1985



Fig. 16

TABLE 3

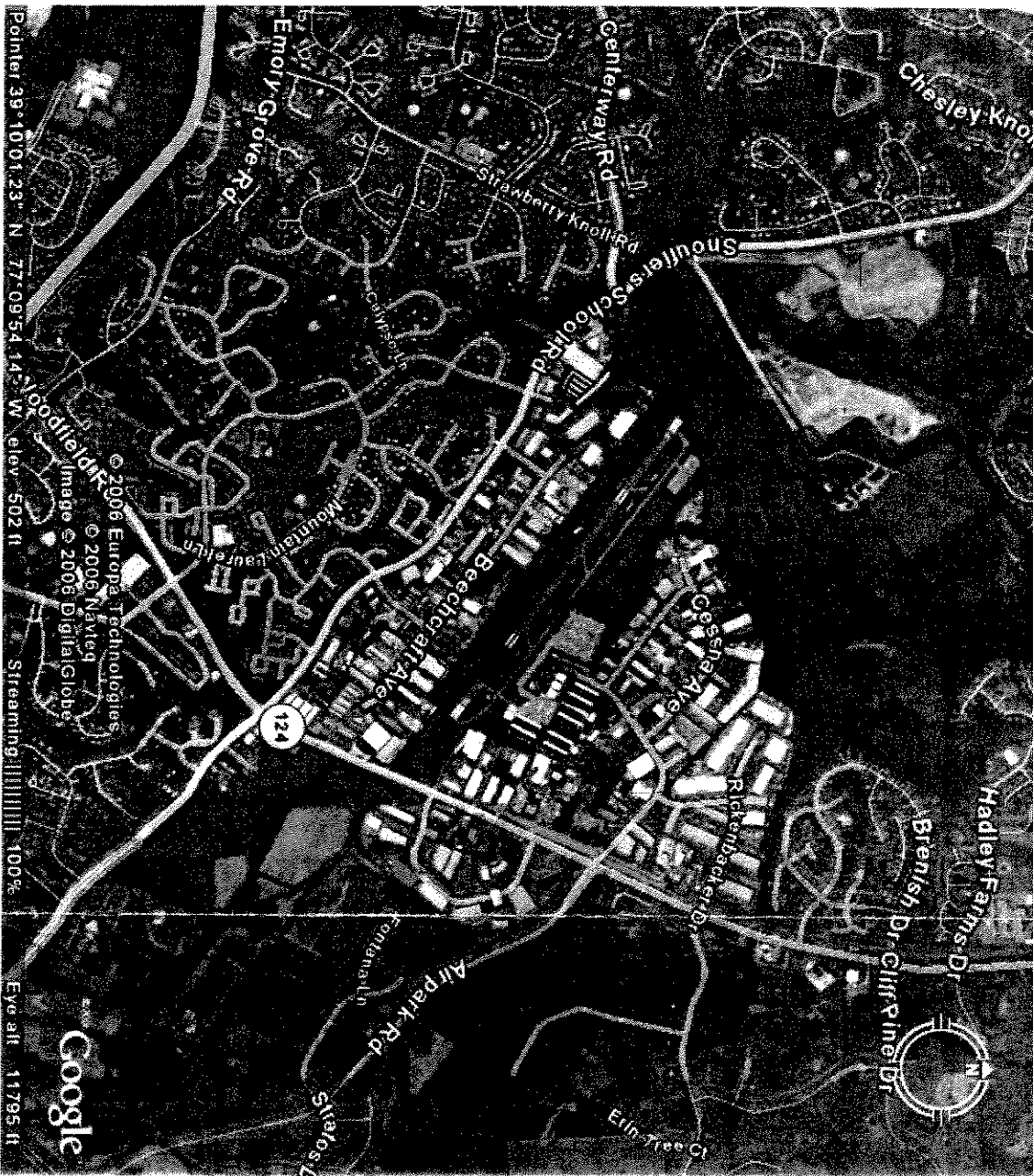
AIRPARK ANALYSIS AREAS  
SUMMARY OF ZONING RECOMMENDATIONS

1	2	3	4	5	6
Analysis Area Number	Acreage	Existing Development	Recommended Zoning Base/Optional	Potential Units Recommended, Base/Optional <sup>1</sup>	Net TDR's Over Base Density
MIDCOUNTY HIGHWAY DISTRICT					
1	1	1 single family	R-200	2/2	0
2	21	171 townhouses 60' garden apts.	R-30 & RT-12.5	231/231	0
3	9	17 single family church	R-90	32/32	0
4	8	vacant	R-90/TDR-5	28/40	12
5	16	vacant	R-60	80/80	0
6	5	vacant	R-90/TDR-5	18/25	7
7	80	vacant	R-90/TDR-6 <sup>2</sup>	288/480	192
8	54	vacant	R-90/TDR-6	194/324	130
9	3	1 single family	R-200/TDR-5 <sup>3</sup>	6/15	9
10	25	100 single family	R-60	100/100	0
11	10	vacant school site	R-200	20/20	0
12	27	12 single family	R-200/TDR-4	97/108	11
13	(city of Gaithersburg not included in calculations)				
TOTALS	259			1096/1457	361
FLOWER HILL DISTRICT					
14	42	Upper County Community Center, Longview Special School, parkland	R-60	0	0
15	27	vacant	R-60	135/135	0
16	10	vacant; Flower Hill	R-60	50/50	0
17 & 18	23	vacant; Flower Hill	R-90/TDR-5	83/115	32
19	17	13 single family	R-200	34/34	0
20	8	6 single family	R-200/TDR-4	16/32	16

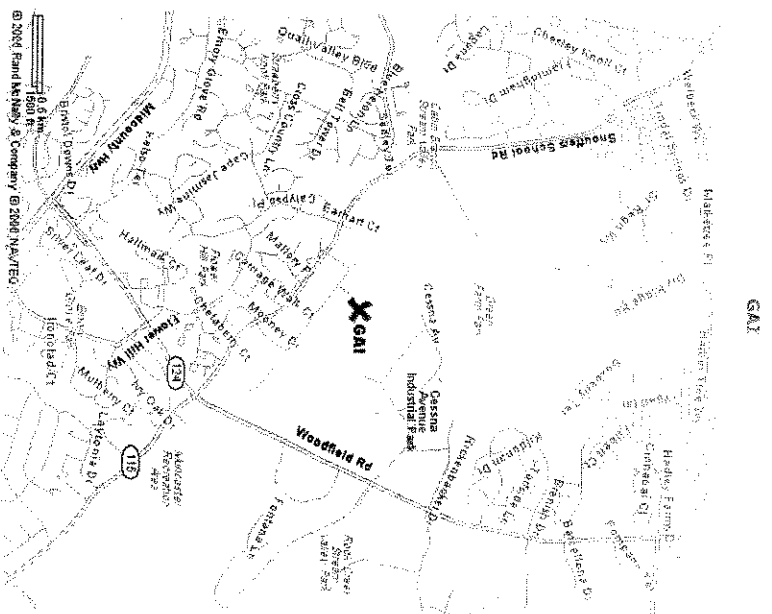
<sup>1</sup> Densities indicated are the maximum permissible, without the bonus for providing Moderately Priced Dwelling Units (MPDU's). Any subdivision of 50 or more units must include 12.5% MPDU's, in which case a density increase of up to 20% and optional development standards and unit types are permitted. Densities do not reflect cluster densities.

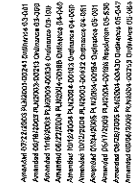
<sup>2</sup> The Plan recommends single family detached units at 4 units per acre near the town of Washington Grove's Forest Preserve.

<sup>3</sup> If developed in combination with other property, the Plan recommends TDR-5.

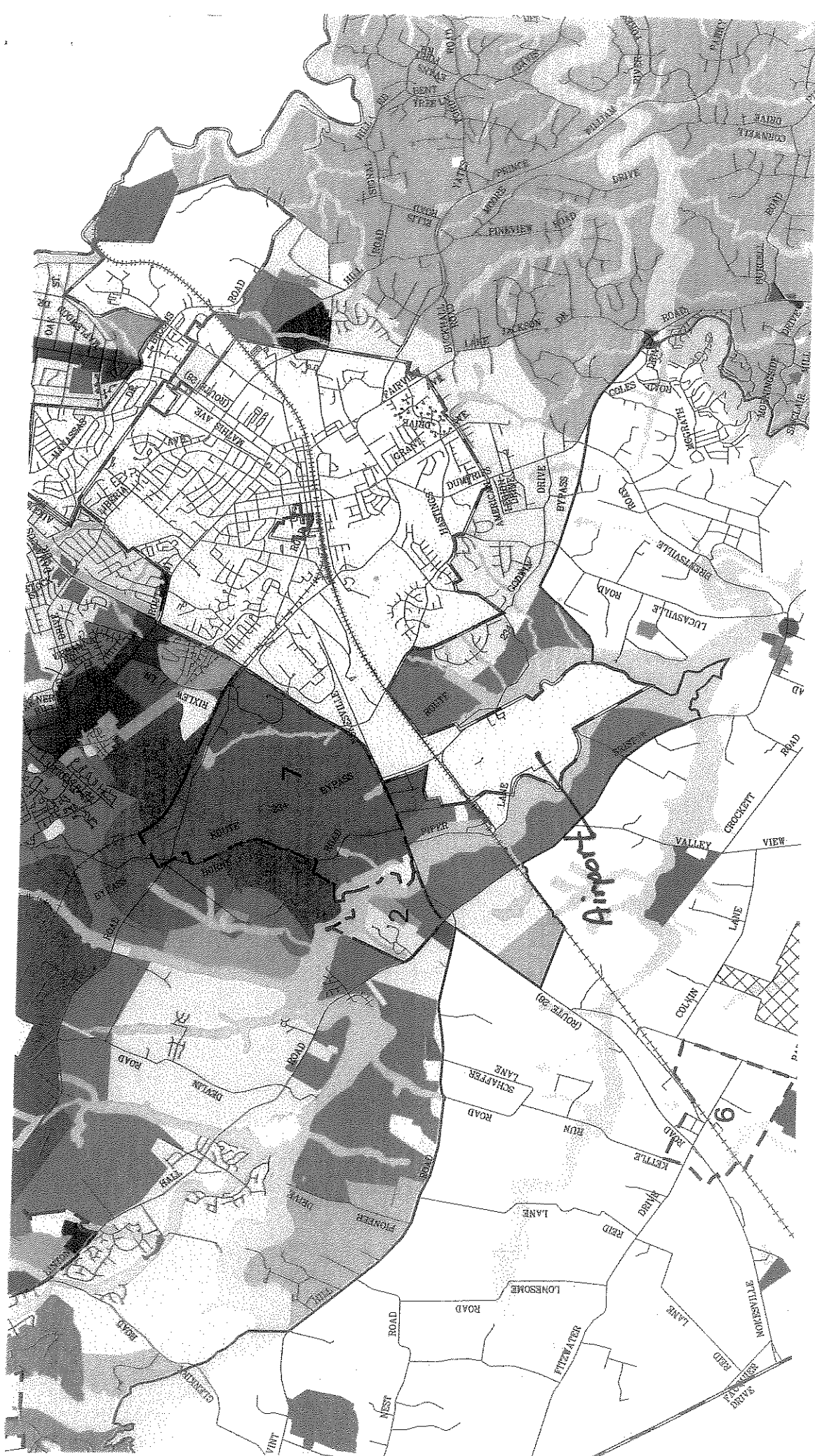


MONTGOMERY COUNTY AIRPARK, MD  
 GA1: 539' MS± RVT 14/32;  
 4202' x 75'

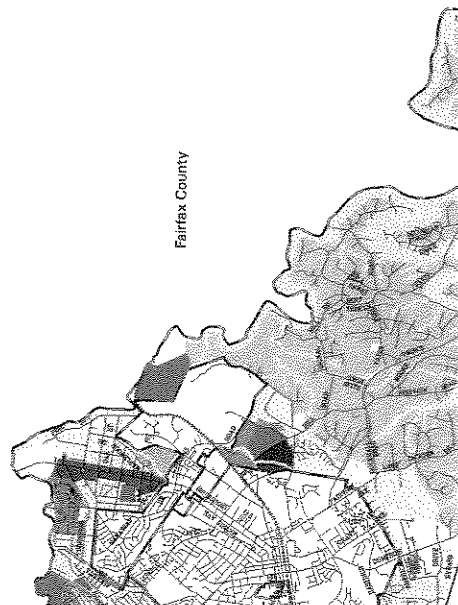








ed December 12, 2005



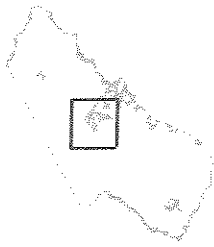


## PWC-GIS CountyMapper



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A30

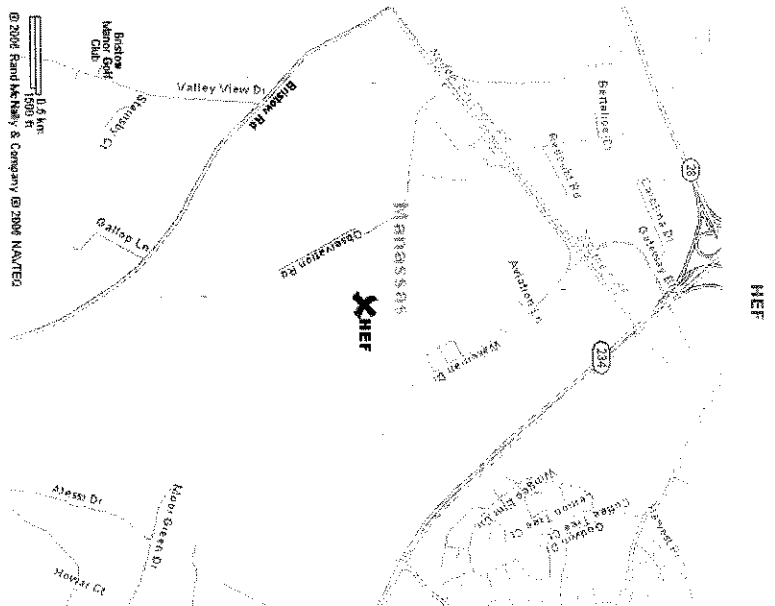


Mon Nov 20 14:07:18

# PWC-GIS CountyMapper

Map Legend			
<b>Road Centerlines</b> Interstate High Speed Ramp Low Speed Ramp Primary Highway Arterial Collector <b>Hydrography</b> Hydrography Marsh Perennial Water Feature	<b>Parks</b> A-1 Agricultural B-1 General Business B-2 Neighborhood Business B-3 Convenience Business M/T Industrial/Transportation M-1 Heavy Industrial M-2 Light Industrial O(F) Office/Flex O(H) High-Rise Office O(M) Mid-Rise Office (cont)	O(L) Low-Rise Office PBD Planned Business District PMD Planned Mixed District PMR Planned Mixed Residential RPC Residential Planned Community R-2 2 Dwellings per 1 acre R-4 4 Dwellings per 1 acre R-6 6 Dwellings per 1 acre R-16 16 Dwellings per 1 acre R-30 30 Dwellings per 1 acre (cont)	R-U Min. 31 Dwellings per 1 acre RMH Mobile Home Park SR-1 1 Dwelling per 1 acre SR-3 1 Dwelling per 3 acres SR-5 1 Dwelling per 5 acres FED Government Tracts <b>Town or City</b> <b>Jurisdictions</b> Prince William County Cities and Towns

A31





**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**DATE:** November 30, 2006  
**TO:** Board of Supervisors  
**FROM:** Joe Gorney, AICP *JG*  
**SUBJECT: CPAM 2006-0002, Crosstrail**

During Crosstrail deliberations, Board members queried staff regarding mixed use developments and their adjacency to airports. In response, staff has profiled several airfields in the greater Washington DC Area. Staff also examined a study commissioned by Prince George's County, Maryland, which assessed land uses adjacent to the four airfields within their County limits. Additionally, staff has questioned numerous pilots, flight instructors, FAA personnel, airport managers, and staff regarding their first-hand experiences in their respective communities. These discussions are profiled in the attached materials.

Lastly, staff has included an explanation and map of the flight patterns at the Leesburg Executive Airport and the overflight potential of the Crosstrail property. Some limited information was provided by a Peterson Company consultant at the November 20, 2006 meeting regarding one particular approach and missed approach path. Such an approach and missed approach path represents one particular circumstance. The applicant's consultant did not discuss the other numerous overflight occurrences. A compilation of overflight occurrences is included as an attachment to better explain the extent of flight operations surrounding the Leesburg Executive Airport.

**Attachments:**

1. Land Uses Adjacent to Airports
2. Leesburg Airport Flight Patterns
3. Flight Patterns Map

# LAND USES ADJACENT TO AIRPORTS

## Airport Land Use Compatibility and Air Safety Study (Prince George's County) For the Maryland-National Capital Park and Planning Commission November 10, 2000

### National Findings:

- Noise, annoyance, and pollution from aircraft operations have led to discomfort and litigation.
- Even when homebuyers knew about the airport locations before buying homes, they have taken actions to seek damages, from claims of nuisance to allegations of inverse condemnation, saying that authorities have allowed situations to develop which deprive residents of a quiet environment and which negatively affect the financial value of their homes.
- Federal aviation policy does not seek to regulate land use in local communities unless such use falls within the confines of the limited federal jurisdiction as to overflight rights, noise, protrusions of structures into the air, and situations where air safety is clearly compromised.
- Local governments sometimes erroneously believe that if a proposed development does not run afoul of federal aviation standards and areas of limited federal jurisdiction (such as 65 LDN contour lines), then any other proposed land uses are acceptable.

### The Role of the Federal Aviation Administration (FAA)

- The FAA is the primary federal agency charged with air safety regulation and the development and operation of the nation's air traffic control system.
- It regulates airports, airways, pilots, mechanics, and air controllers.
- It participates in the regulation of aircraft manufacturers, fixed base operators, aircraft repair facilities, and related matters.
- The FAA does NOT undertake to enact or enforce local land use controls and leaves these issues to local governments.

### Factors to consider within Prince George's County:

- The four (4) General Aviation (GA) airports in the County all have distinct problems related to safety, noise, and vertical penetration. The airports include:
  - Potomac Airfield
  - Washington Executive/Hyde Field
  - College Park Airport
  - Freeway Airport
- Most of the GA airports were in place years before population pressures and developer actions began surrounding the airports with housing and commercial developments.
- Aircraft owners and users grew in numbers not forecast by local planning authorities.
- Local councils and commissions likely believed that if an airport operation met minimum FAA and state standards that the safety of residents and aircraft operators was not being compromised by developments in close proximity to existing airports.
- In some cases, the local government did not act in concert with long-range master planning.

### Prince George's Findings & Recommendations:

- Potomac Airfield
  - It is recommended that the M-NCPPC buy or condemn the airport or acquire the residences in the Accident Potential Zone.
  - It could also help the operator to make operational changes by modifying the Special Exception under which the airport operates.

- Washington Executive/Hyde Park
  - Reliever airport to Reagan-Washington National. Eligible for federal funds. (Note: the reliever status of the Washington Executive Airport has since been rescinded and it is no longer eligible for federal funds).
  - Work with the owner-operator to obtain federal funds for the airport development.
  - Through various actions and mechanisms, the Commission can pre-determine the future uses of properties surrounding the airport.
- College Park Airport
  - As owner-operator, M-NCPPC can implement changes at the College Park Airport and provide valuable input and guidance for the University of Maryland development plans for the airport area.
  - The Commission may be able to act to preclude future incompatible uses of surrounding properties.
- Freeway Airport
  - It is recommended that the M-NCPPC buy or condemn the airport or acquire some of the property in the nearby proposed subdivision in the Accident Potential Zones. The proposed subdivision would put residences directly in the path of the runway.
  - The Commission could also create more airport-compatible land uses in the in the subdivision by working with the developer to revise the layout of the subdivision.

Prince George's County has since adopted Zoning Bill No. CB-51-2002 on May 21, 2002 regarding General Aviation Airports and Aviation Policy Areas. It largely follows the recommendations contained in the preceding Land Use Compatibility Study.

### **Centennial Airport, Arapahoe County, Colorado (Southern Denver Area) Noise Program**

<http://www.centennial-airport.com/noisehome.htm>

- Airport Background
  - Centennial Airport is a General Aviation Airport generally surrounded by other industrial and commercial uses.
  - One surrounding jurisdiction has adopted land use compatibility guidelines. Another has not.
  - Centennial Airport has a full-time employee to manage the noise program.
- Noise program measures include:
  - A noise hotline.
  - Email submission of complaints.
  - Coordination with air traffic controllers and pilots.
  - Meetings with homeowners associations.
  - Portable noise receptors, which are available to homeowners, that record noise levels over a 7-day period.
  - Management of a Part 150 Study, an FAA-approved program to analyze noise and suggest means to minimize its impact.
  - Pilot guides, which profile noise mitigation efforts and procedures.
  - Sample aviation easement language available to all jurisdictions.
  - Recommended airport disclosure for home buyers.
  - Investigation of complaints, including requests for radar images from the Denver International Airport.
- Noise Complaints

- Through October, Centennial received 9,420 complaints from 206 households.
- One household had submitted over 2,000 complaints for the year.
- Eliminating the top and bottom 5 households resulted in 1,378 complaints.
- Centennial analyzes noise complaints for various sectors within 5 miles of the airport, from 5 to 10 miles from the airport, and outside of 10 miles. All areas recorded noise complaints, even outside of 10 miles.

### **Frederick Municipal Airport, Frederick, Maryland**

- Frederick is a general aviation airport similar to Leesburg.
- It handles corporate clients, such as Bechtel.
- Plans, policies, and zoning preclude mixed-use development in the vicinity of the Airport.
- Recent rezoning and draft plans call for a continuation of light industrial and commercial uses.

### **Montgomery County Airpark, Gaithersburg, Maryland**

- Montgomery County is a general aviation airport, largely surrounded by light industrial uses, roads, and park lands.
- A rezoning for an age-restricted residential development of approximately 100 acres north of the Airport was recently denied.
- The airport receives noise complaints for residential areas. One of the most active neighborhoods is approximately 1½ miles from the Airport.

### **Issues Raised**

The following points were consistently raised by the respective FAA staff, City staff, County staff, and airport operators:

- FAA standards are minimums and a starting point for land use compatibility measures. The FAA will not comment beyond these minimal standards. Compatible land use around airports is the responsibility of the local jurisdictions.
- Airports are most often surrounded by multiple jurisdictions. They are therefore more difficult to protect from encroachment than if they were surrounded by a single jurisdiction.
- Changes to flight operations to avoid the overflight of incompatible uses leads to decreased efficiencies and decreased aircraft safety.
- The first purchasers of a house are generally aware of the presence of a nearby airport due to disclosures. Subsequent buyers might receive no notification. There is a delayed impact to residents after houses change hands and aviation activity increases.
- Airports are regional economic generators.
- Airports can be likened to industrial uses.
- Noise contours are based on a computer model and reflect averages of the most severe annoyance. Impacts will occur outside of these contours. Individual noise events from general aviation activity outside of these contours can be expected to cause significant annoyance.
- Language requiring Compatible Land Use measures (Item # 21) is included in federal grant assurances.



# LEESBURG AIRPORT FLIGHT PATTERNS

## Background

- The attached map represents a compilation of the many circumstances under which aircraft operate at the Leesburg Airport.
- Sources of the information came from interviews with pilots who operate out of Leesburg Airport, flight instructors at the Leesburg Airport, Airport staff, FAA-approved approach procedures, and direct observation.
- When winds are out of the north, aircraft will land to the north (Runway 35). The runway numbers roughly equate to the approximate magnetic bearing of the runway: in this case 350°.
- When winds are out of the south, aircraft will land to the south (Runway 17).
- Flight tracks are dependant upon a number of factors including winds, airspeed, the number of aircraft in the traffic pattern, and pilot proficiency. The faster the aircraft, the wider the flight pattern.
- All tracks are approximate. Aircraft move in an airmass. Unlike motor vehicles on a road or train on a fixed guideway, aircraft are not physically restricted to a particular track or altitude.
- Overflight of the Crosstrail property is expected from both IFR (Instrument Flight Rules) and VFR (Visual Flight Rules) traffic.

## Overflight Situations

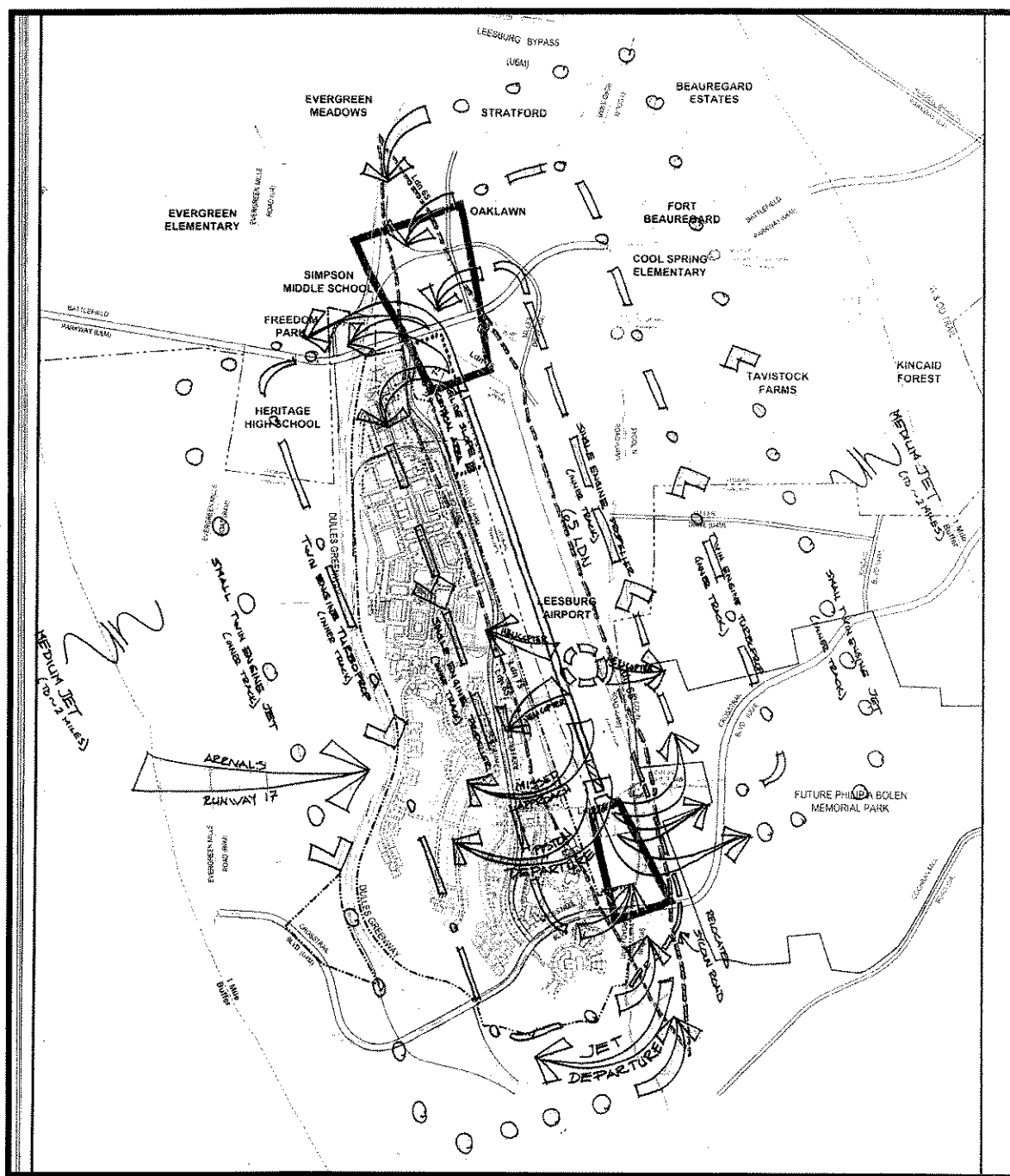
- Overhead Pattern
  - VFR traffic generally follows an overhead racetrack pattern using left-hand turns for both takeoffs and landings.
  - The inner most track depicted on the map represents the closest pattern that could be flown by the slowest speed aircraft. An average flight pattern could generally be considered as the second pattern depicted, or the Inner Track of a Twin Engine Turboprop.
- IFR Departures, Runway 17
  - Instrument departures from Runway 17 are one of the primary overflight situations for the Crosstrail property and the situations with some of the greatest noise impacts.
  - Air Traffic Control (ATC) will direct departing aircraft to execute a right turn as soon as possible to avoid the Terminal Control Area for Dulles International Airport and proceed to the northwest. These measures are largely to deconflict Leesburg and Dulles air traffic and to avoid mid-air collisions.
  - Following takeoff, aircraft will execute their right turn once they have accelerated sufficiently. Turns are generally initiated anywhere from the center of the runway to the end of the runway and beyond, depending on aircraft performance and speed.
  - Turns after takeoff are performed at high power settings, which results in some of the greatest noise impacts.
  - After the right-hand turn, aircraft will usually proceed to the STILL intersection. The STILL intersection is a point in space approximately 11 miles north-northwest of the Leesburg Airport defined by specified radials emanating from two navigational aids.

- IFR Arrivals
  - These arrivals are generally flown to Runway 17.
  - For Runway 17, aircraft fly from the northwest directly to the runway and will not overfly the Crosstrail property on the approach.
  - Aircraft could technically arrive from the southeast and fly directly to Runway 35 but they would have to get clearance to fly through the Dulles Terminal Control Area, a rare occurrence. Aircraft wishing to land on Runway 35 would be far more likely to fly an instrument approach to Runway 17, sidestep from the runway centerline to the west, and circle around to land on Runway 35.
- VFR Arrivals
  - Runway 35 - From the west, aircraft will generally aim for the center of the runway and ultimately join the overhead pattern at a 45° angle.
  - Runway 17 – From the west, aircraft will generally fly across the center of the runway and join the traffic pattern to the east of the runway.
- Helicopters – MedEvac helicopters fly from their parking area at the Leesburg Airport directly to their destinations. They quickly cross the runway to avoid conflicts with airplanes. For flights to the west, they will overfly the Crosstrail property.

#### **Noise Considerations**

- Overflight is largely a concern due to noise. Single event noise from one aircraft overflight can greatly exceed average noise levels. Low level noise from overflights can also cause annoyance.
- Noise is also generated from the aircraft ramp.
  - Noise impacts occur during pre-flight checks, when engines are operated at high settings for one or two minutes and aircraft systems are checked.
  - Turboprop aircraft also “feather” their props resulting in shifting noise pitches during pre-flight checks.
  - Noise impacts also occur during extended engine runs on the airport ramp for maintenance work.
  - Noise from engine run-ups is audible from the Crosstrail property.

# Flight Patterns Leesburg Executive Airport



**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**DATE:** November 29, 2006 (revised)

**TO:** Board of Supervisors

**FROM:** Susan Berry Hill, Project Manager

**SUBJECT: CPAM 2006-0002, Crosstrail – Comparative Information on Town Centers**

At the November 20, 2006 Board of Supervisors, Committee of the Whole meeting, staff was asked to provide project data on various town center projects including the Reston Town Center and the Washingtonian. These general statistics were compiled on the following town center projects.

	<b>Crosstrail</b>	<b>Reston TC</b>	<b>Washingtonian</b>	<b>KSI</b>	<b>Lansdowne Village Greens</b>
<b>Project Area</b>	112 ac.	85 ac.	24 ac.	150 ac	58 ac.
<b>Hotel</b>	Combined with Office	1M s.f.	210 rooms	Space reserved for future hotel	No hotel
<b>Office</b>	500K – 1M s.f.	2.15 M s.f.*	1 M s.f.	208K s.f.	155K – 225K s.f.
<b>Retail</b>	370K-700K s.f.	315K s.f.	300K s.f.	464K s.f.	150K – 220K s.f.
<b>Residential</b>	482 d.u	1034 d.u.	84 d.u.	635 d.u.	390 d.u
<b>FAR</b>	.35	.94		.27	

\*Note: Correction made to the memo originally dated November 29, 2006 to change 215 million square feet to 2.15 million square feet.